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DETROIT

A National Newspaper for Every Branch of the Industry

Automotive Daily News

PASSENGER TRUCK PARTS, SHOP EQUIPMENT TIRES ACCESSORIES

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New Fargo Packet With Chrysler-Built Engine Ready April 1

Detroit, March 19.—A new Fargo Packet, built by the Fargo Motor Corporation, a division of Chrysler Motors, is to be powered by a six-cylinder Chrysler-built engine, according to an announcement by Harry A. Kaufmann, sales manager for Fargo at Chrysler headquarters in Detroit.

This new half-ton commercial car, already in production, will be ready for distribution to Fargo dealers before April 1, according to officials at the plant.

"In addition to being equipped with a powerful and dependable motor, the Packet is attractive and original in design," Mr. Kaufmann said. "Tests made at the factory in Detroit show it is phenomenal in performance and exceptionally economical. This economy is remarkable not only from the viewpoint of first cost but from operation costs as well. It has the speed, quick acceleration and economy in operation of the passenger automobile.

"The body lines have been developed to meet a market served in the past only in a limited way by more expensive custom-built commercial cars. The lines and elegance of the modern automobile extend even to the driver's compartment, with vertical ventilating windshields, automatic windshield wipers, light controls on steering wheels, striped rubber floor mat and floor draft plates."

Smoothness of operation and instant braking facilities insured by internal expanding four-wheel hydraulic brakes with ease of handling in traffic, are among other outstanding features claimed by the manufacturers.

The engine, with an S. A. E. rating of 21.6 horse power, actually develops in excess of 55 horse power. The "Silver Dome" perfected high compression cylinder head, giving the maximum in power, is standard equipment. It has an unusually heavy crank shaft, with four main bearings 2¼ inches in diameter. The pistons are of the Iso Therm Invar-strut type, and the rings are of the new tongue and groove construction. Crank case ventilation, oil filter, air cleaner and exceptionally large valves are additional mechanical features.

The prices of the new model range from $595 upward.

G. M. OFFERS PREFERENCE SHARES OF VAUXHALL MOTOR

London, March 19.—The General Motors Corporation, which holds common shares of the Vauxhall Motor Company, has made an offer to shareholders for £300,000 4 per cent. preference shares, bidding 15s. 6d. for each share. In circular to shareholders it is stated that prospects do not justify expectation of a dividend on the common stock during the current year.

FIVE AMERICANS ON BOARD OF OPEL MOTORS

Berlin, March 19.—The Tageblatt's Frankfurt correspondent states that the new board of directors of the Opel Automobile Company would include five Americans and three Germans and that an American would displace Fritz von Opel as general director.

REQUIRE GAS TAX BOND FROM SO. CAROLINA DEALERS

Columbia, S. C., March 19.—Gov. Richards has signed the act requiring all gasoline dealers doing business in South Carolina to furnish bond for the payment of the state tax on gasoline.

Automotive Stock Prices Strike Favorable Ratios to 1928 Earnings Per Share

By CONRAD J. ALEXANDER

NEW YORK, March 19.—Stocks of passenger car and truck and automotive accessory, parts and equipment manufacturers listed on the New York Stock Exchange are selling at generally favorable ratios on the basis of 1928 earnings per share.

General Motors, looked to as the pace setter for the automotives, at 88 is selling at 14.4 times the $6.14 net income per share last year on the present capitalization. This compares with a market price of fifteen times earnings for United States Steel, long the accepted stock market barometer. This latter stock earned $12.50 per share in 1928 and is selling at around 188.

A study of the common stocks of some of the leading automotive manufacturers that have reported earnings for 1928 shows that those selling for less than fifteen times earnings, which is now generally accepted as a fair price for a sound stock, outnumber those selling at more than that ratio.

This condition is not true of the tire company stocks, however, due to unusual and non-recurrent circumstances surrounding this industry last year. The collapse of the rubber market left all companies with large inventories of crude rubber purchased at high prices and their action in writing off their complete losses in their 1928 reports greatly reduced and in some cases completely wiped out net incomes.

Among the six prominent passenger car companies the 1928 earnings of which have been made public, Hudson Motor Car Company is in the most favorable position as far as this ratio is concerned. The per share net was $8.43, and at 90 it is priced at 10.6 times earnings. This position was reflected in the market "break" of early February, when it held comparatively firm. This stock at present has many boosters who say it should be brought up into line.

Studebaker and Nash are selling at about the same ratio. The former at 87 is priced 12.1 times earnings and Nash at 107 is 12.8 times.

Mack Trucks, Inc., one of the most representative stocks in the truck group, at 105, is priced at a favorable ratio, 13.4 times net per share. White Motors, which on the strength of improved outlook has recently risen from around 42 to 50, is now priced 17.2 times earnings of 2.10 per share.

Out of ten prominent accessory parts and equipment makers who have submitted their 1928

(Continued on page 12)

JORDAN MARCH SCHEDULE TRIPLE THAT OF FEBRUARY

Cleveland, March 19.—March production scheduled for the Jordan Motor Car Company will triple that of February and a large number of unfilled orders are on hand for thirty and sixty days in advance, officials said today.

Edward S. Jordan, president of the company, has returned here after spending several weeks in the East completing arrangements for the operation of the new distributing group. Headquarters have been established in Boston, New York and Philadelphia, he announced.

JORDAN MOTOR MEETING POSTPONED TO APRIL 15

Cleveland, March 19.—The annual meeting of the Jordan Motor Car Company has been postponed for lack of a quorum until April 15.

GOODRICH SILVER FLEET GREETED BY GOV. MOODY

Austin, Tex., March 19. — The Goodrich Silver Fleet arrived here from San Antonio and was greeted on the steps of the Capitol building by Gov. Dan Moody, Mayor McFadden and other state and city officials. The fleet then drove to the Campus of the University of Texas and parked during the noon hour and thousands of students inspected the cars and manifested keen interest in the various demonstrations put on by the pilots.

The fleet returned to the special parking space in front of the Austin Hotel where many people viewed the cars. The fleet weighed anchor today for Waco, Commander H. R. Schaeffer in charge.

STANDARD OIL BOOSTS CALIFORNIA GAS 6 CENTS

San Francisco, March 19.—The Standard Oil Company of California has raised gasoline prices 6 cents a gallon. Tank-wagon price at San Francisco effective March 19, is 19 cents a gallon, against previous price of 13 cents. Los Angeles price is 18½ cents, against 12½ cents previously. Discount to dealers will be 3 cents under the tank-wagon price in both cities.

This action is regarded as the first indication of the termination of the Pacific Coast gasoline war. Gasoline has been retailing as low as 11 cents, including the 3-cent state tax, in San Francisco territory.

CITROEN DENIES PURCHASE OF COMPANY BY G. M.

Paris, March 19.—Officials of the Citroen Automobile Company deny rumors that the company has been acquired by the General Motors Corporation.

General Motors officials here professed ignorance of the matter, saying that if any such negotiations were in progress they would have been informed.

California Durant Plans to Produce 30,000 Cars in 1929

Los Angeles, March 19.—Durant Motor, Inc., of California will manufacture more than 30,000 automobiles at its Oakland factory in 1929, according to Norman De Vaux, vice-president and general manager of the California factory, at a luncheon for Durant dealers, held during Automobile Show week. More than 150 Durant dealers from southern California were present.

"This will be the greatest year in Durant history," stated Mr. De Vaux. "We have a production schedule of 30,000 automobiles at present. It is within the realm of reason that we will increase production to 40,000 automobiles for the twelve months."

Haynes Sees 1929 As Greatest Car Year in History

Kansas City, March 19.—Frederick J. Haynes, president of the Durant Motor Company, visited Kansas City today on a tour of the Middle West and spoke at a meeting of Durant dealers in this section, held at the Norris Motor Company, Durant distributor.

F. J. Haynes

Mr. Haynes declared that the automobile business, instead of being "overgrown, as some believe," is on a sounder basis than ever before, and that this year will be the greatest in the history of the industry.

"I have been in the automobile business a good many years," Mr. Haynes told the dealers, "and I believe that my contact with the industry through these years of rapid expansion gives me the right to say that the industry is on a sounder basis than ever before."

WASHINGTON TO SPEND $26,000,000 FOR ROADS

Seattle, Wash., March 19.—The state highway melon for the next two years was cut by the Legislature last week, appropriating $26,000,000 for highway building and maintenance. Of this sum, some $18,000,000 will be for new road work, three-fourths of which will be spent in western Washington and the balance east of the Columbia River.

Canadian Motor Vehicle Exports Show Steady Gain Over Last Year

Washington, March 19.—Canadian exports of motor vehicles in January totaled $3,816,722, as compared with $2,967,528 in December, an increase of 28 per cent., the Department of Commerce disclosed today.

Exports of passenger cars and trucks increased respectively 36 and 56 per cent. in number over the previous month, with the greatest gain of passenger car exports in the medium priced classification, $500 up to $1,000 where shipments increased 71 per cent.

At the same time, total exports far exceeded shipments in the same month of 1928. Passenger car units increased 206 per cent. and trucks 100 per cent. In January, 1928, no trucks of a capacity over 1 ton were exported, while in January, 1929, shipments in this classification totaled 1,615.

The average value of passenger cars and trucks exported was, respectively, $439 and $401 in January, 1929, as compared with $460 and $417 in December, 1928.

Australia was the best market for Canadian low priced passenger cars, taking 1,895 units in the classification up to $500. New Zealand became the leading market for medium priced passenger cars, valued at $500 to $1,000, replacing the United Kingdom.

Australia and New Zealand also held first and second positions as markets for Canadian trucks; shipments to these countries increased, respectively, 76.8 and 84 per cent. Seven markets, Australia, New Zealand, British India, British East Africa, British South Africa, Siam, and the Dutch East Indies took 1,527 of the 1,615 truck units of a capacity over a ton exported from Canada in January, 1929.

Employment Gains 11% in Metal Plants Of Northern N. Y.

By S. E. KENNEDY

Albany, N. Y., March 19.—Report of the State Labor Department shows that factory employment increased more than usual during the past month, with the most conspicuous gains recorded in the metal industries. Iron and steel plants working on automotive orders have increased their forces 11 per cent. since January, while the brass, copper and aluminum factories added 8 per cent. more workers. Several of the larger automobile and airplane factories continued to report good increases in employment which was not so general as in January.

With the spring drive now in full swing a gradual increase in the production of principal plants continues with night shifts being resorted to in some instances to guarantee shipment of orders on contract time. Many manufacturers report difficulty in taking care of the heavy volume of business which is now being experienced in virtually all sections of the district. In this city the Springfield Body Corporation and Ramsey Chain Company are augmenting forces and otherwise preparing for the spring demands. The National Automotive Fibres Corporation, Cohoes, is also experiencing stimulated demand for upholstery fabrics and brake linings which has necessitated night work in many departments.

Increased schedules have also been effected at the Utica plant of the Dunlop Tire and Rubber Company, which reports day and night shifts being employed steadily in turning out cord tire fabrics. The plant is being operated in conjunction with the main finishing mill at Buffalo with officials estimating the present rate of production at about 75,000 pounds of cord fabrics weekly. Additions to the working force are enabling the employment of 400 hands, which is the largest number ever employed.

The American-La France and Foamite Corporation, Utica, has appointed George H. Harris general superintendent, and he will assume his new duties on April 1. He succeeds L. C. Smith, who has been identified with the firm for the past twenty-eight years. Mr. Harris has been serving as assistant factory manager for the past several years.

The Ford Motor Company, Green Island, has carried its fight regarding the use of flashboards near its plant to the United States Supreme Court in an effort to have previous court decisions reversed. The Mohawk Papermakers Corporation

(Continued on Page 12)

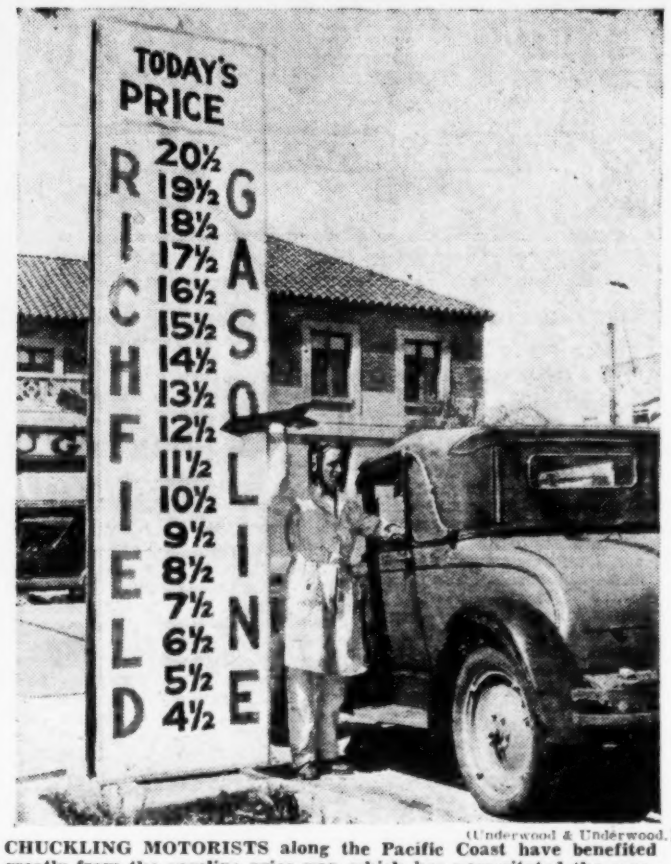
FLOOD STOPS AT DOORS OF CEDAR RAPIDS GARAGES

By F. C. HANSON

Cedar Rapids, Iowa, March 19.—Although the rampaging Cedar River has reached its highest point in forty-five years the automotive industry in Cedar Rapids is practically unimpaired. The main section of the automotive business district is situated out of the flooded area by many blocks.

On a street adjoining the river are many garages and salesrooms, at the doors of which the water is lapping, but these buildings have no basements to flood and have suffered no damage. Streets in business and residential districts have become raging streams in which dozens of automobiles have been stranded.

Gas Price War Barometer



(Underwood & Underwood.)

CHUCKLING MOTORISTS along the Pacific Coast have benefited greatly from the gasoline price war, which has necessitated the erection of signs like the one above, being used by H. A. Stanhilber at his station in Los Angeles. As the tides of battle shift Mr. Stanhilber moves the arrow to conform with current prices.

NEW $140,000 BUILDING FOR FORD, CHEVROLET

Camden, N. J., March 19.—Work will start within the next week on a new $140,000 automobile sales and service building on the bridge entrance road near Federal Street. The building will house two automobile concerns, the Camden Motor Company, Chevrolet dealer, now at 528 Market St., and Cramer & Myers, Inc., Ford dealers, now at 780 Wright Ave.

The building will be two stories high, of reinforced concrete, brick, steel and Indiana limestone. It will measure 55x131 feet. Specifications include stone and concrete foundations, concrete floors, waterproofing, hollow tile, caulking, granite, iron stairs, rolled steel casement windows, concrete roof slab, gypsum and slag roof, rolled steel skylights, lined fire doors, metal lath, tile and terrazzo work, vapor heat radiators, oil burners, wrought iron pipe and electric light.

NEW CAR ASSEMBLY PLANT TO OPEN IN JAMESTOWN, N. Y.

Buffalo, March 19.—An automobile assembly plant is to be opened shortly in the building in Jamestown, N. Y., formerly occupied by a subsidiary of the Eastman Kodak Company. The company will afford employment to about 200 men, and will assemble cars at Jamestown for final driveaway and other shipment for a large Eastern territory, it is understood. Reuben W. Wright, Dunkirk, N. Y., business man, is handling the deal, which will result in opening of the new assembly plant, the name of which cannot be disclosed at this time, he says. Work will begin in the early spring in the new plant, he reports.

WESTINGHOUSE OPENS DIESEL SALES BRANCH

Philadelphia, March 19.—The Westinghouse Electric and Manufacturing Company has established a marine and Diesel engine section of its sales department at South Philadelphia.

SAFETY RESPONSIBILITY BILL FOR NEW JERSEY

Trenton, N. J., March 19.—A bill designed to bring about safety on the highway without incorporating compulsory automobile insurance, and which is backed by the New Jersey Automobile and Motor Clubs of the state, was introduced into the Legislature by Senator Chandless of Bergen county.

The measure, known as the "safety responsibility bill," is the draft prepared by the special committee of the American Automobile Association, designed for country-wide adoption. The measure here was changed in some minor details to make it adaptable to New Jersey. It in no way affects the present motor vehicle or traffic acts, but is supplementary to both of them.

According to its object, the measure is designed to promote safe driving and to remove the irresponsible driver from the highways. It would do the latter by denying the use of the roads to persons who have failed to pay a judgment rendered against them. It would also prevent a person who had been ruled off the road in another state from moving to New Jersey and operating a motor vehicle here.

CANADIAN DODGE MOVES SALES OFFICE TO WINDSOR

Montreal, March 19.—John D. Mansfield, president of the Chrysler Corporation of Canada, Ltd., and managing director of Dodge Brothers (Canada), Limited, announces the removal of Dodge Brothers sales and administration headquarters to Windsor.

Dodge Brothers manufacturing operations will continue at the Toronto plant and the Dodge Brothers (Canada), Limited, will remain a separate entity. L. M. Cregor is appointed sales manager of Dodge Brothers (Canada), Limited, with headquarters at Windsor. A regional sales office will be maintained at the Toronto plant with Paul Gee as regional sales manager for Ontario.

"Extensive economies have already been effected in Dodge operations through centralizing of control," continued Mr. Mansfield.

PEERLESS REVAMPS PLANT FOR NEW CAR PRODUCTION

Cleveland, O., March 19.—The Peerless plant in Cleveland has been revamped to provide a complete individual factory for the manufacture of the new Straight Eight 125 which will be in production before the end of this month.

The new eight will be produced without disturbing the assembly line on the Six-61 which is being built in record-breaking quantities. Heretofore both sixes and eights have been assembled on the same line in the Peerless plant.

By the removal of the Cleveland branch from the factory buildings to its new location in the city's new automobile row, space formerly given to service can be devoted entirely to production.

SPARKS *from* DETROIT

Cars by the Pound

* * *

Dealers Optimistic

* * *

More Cars for Southwest

* * *

Stout's Prediction

Fred Kingsbury—Detroit Editor

A TORONTO MAN with a statistical turn of mind has figured out that automobiles are cheaper than beefsteak, if sold on a basis of so much per pound.

According to the figures, motor cars nowadays retail at a rate of approximately 30 cents a pound, that is, the less expensive cars. Food, it is reported, averages about 50 cents a pound, with the better cuts of steak retailing around 60 cents.

Naturally, people must eat and they must pay the price asked for foodstuffs. They also want to ride, and in riding they save time and money and derive a great amount of pleasure.

* * *

RETAIL automobile merchants in Detroit are optimistic and report that they anticipate a great increase in business during the balance of the month. With the last day for filing income taxes behind us, a spurt is expected in sales that will undoubtedly break all monthly records.

The number of casual visitors to motor car showrooms is increasing, according to latest reports, and leads dealers to believe that this will be the greatest year, in point of sales, in the history of the automotive industry.

* * *

IN A MARKET analysis, just made public in this city, it is shown that the per capita ownership of passenger cars is highest in the Western states having dominant small town population and that increase in car sales in the Western states is higher than in the Eastern metropolitan states.

The Southwest is taking a great many cars this year and they must be good, because a great many of the automobiles that go into that section are used for both business and pleasure. They also receive extremely rough usage.

There is a great demand for cars in the lower price field and makers say this demand will grow throughout the year.

* * *

William B. Stout, president of Stout Air Services, Inc., says that within five years all of the major cities of the United States will be connected by passenger aerial service and that efficient five or six passenger planes will be selling as low as $2,500.

The sales of airplanes will in no way affect automobiles, because of the necessity of transportation to and from airports, which are located at some distance from business sections of cities.

Here, however, is a chance for enterprising automobile merchants to take on the selling of planes, if only as a side line.

* * *

An indication of the status of the automotive industry is seen in the statements of parts manufacturers and suppliers. The majority of these plants are working at full capacity at the present time and some of them are operating on a 24-hour basis.

VIRGINIA'S $65,000,000 HIGHWAY BILL PASSED

Richmond, Va., March 19 (U. T. P. S.).—Reaching sine die adjournment the South Carolina General Assembly ended an annual session which had continued for sixty-seven days.

The session saw the enactment of the most extensive financial measure ever to come before a Legislature of the Palmetto State, the $65,000,000 highway bond law signed by Gov. Richards. Immediate operation of the law was stayed by injunction served on all state officers concerned. The injunctions, granted by Chief Justice R. C. Watts, are returnable before the Supreme Court on April 8.

BIG ORDER FOR LUMBER FOR AUTOMOBILE CRATES

Montreal, March 19.—An order from one of Ontario's largest automobile manufacturing companies for over 500,000 feet of New Brunswick and Nova Scotia spruce lumber has been secured by Price Brothers, Ltd., of Moncton, N. B. The lumber is to be used for boxing for exporting automobiles.

SEVEN CARS ARRIVE FOR INDIANAPOLIS SWEEPSTAKES

Indianapolis, March 19.—Seven cars already are in the paddock at the Indianapolis Motor Speedway, being groomed for the international 500-mile race, which will be held May 30. It is expected that at least forty entries will take part in the race.

MORE than 30,000 Kelch Ventilating Heaters are providing more than 30,000 car owners with abundant warmth and perfect ventilation. Write us and we'll tell you *why*.

GRAND RAPIDS METALCRAFT CORP., Grand Rapids, Mich.

KELCH *The World's Finest Ventilating Car Heater* HEATER

Manufacturers who seek to give Distributors every possible sales-help, upholster their closed cars in genuine

CHASE Velmo

instead of using nameless, unadvertised imitations

Ford Gains Boost Cook County's New Car Registration

Chicago, March 19. — Henry Ford's product contributed largely to the gain scored by Cook county in new car registrations for January and February this year. Ford had a total of 3,681 and the gain for the two months over the similar period last year for all lines was 2,399. Totals were 13,039 for 1929 and 10,660 for 1928.

Fourteen makes, however, had gains over the preceding year. The losses by some of the volume producers were rather marked. Ford's gain was 3,632, having had only forty-nine registrations for January and February last year.

Chevrolet, in second place, had 1,796, compared with 2,829 last year. Hudson-Essex, in third position, led the groups, but showed a loss from 1928. The totals were 988 this year compared with 1,099 in 1928. Hudson, as an individual, showed loss, while Essex had a slight gain.

Fourth place went to Buick with 769, compared with 1,072 last year, and Oakland-Pontiac was fifth with 764. Oakland, as an individual, had 252 this year and 244 last.

Nash was second to Ford among the volume producers in the order of gain. Nash had 618 for sixth place in the general standing. Last year the line registered 596 for the two months

Seventh place went to Chrysler with 606, compared with 534 in 1928, and Graham-Paige was eighth with 447. The percentage of gain of the latter make was 130.4. Then came Studebaker-Erskine and the Willys products. Both the Whippet and Willys-Knight had individual gains. The combined total was 404, compared with 348 last year.

Other lines to show gains were Dodge, 20.3 per cent.; Cadillac-La Salle, 13; Oldsmobile, 62; Auburn, 89.5; Durant, 36.7; Franklin, 118.5, and Moon, 242.8. Stearns and Locomobile each had a gain of one car.

The Cadillac-La Salle combination had a total of 339 compared with 300 last year. Cadillac individually had 219 this year and 195 last, and La Salle scored 120 for 1929 as against 105 for 1928.

Oldsmobile demand has been consistently good since the turn of the year, as evidenced by the liberal gain scored by that line, which had 256 for the two months this year compared with 158 last.

Auburn is also doing a lucrative business, as indicated by 182 this year compared with 96 in 1928. The distributor here reports that the demand is considerably ahead of the supply. He has a large waiting list for orders.

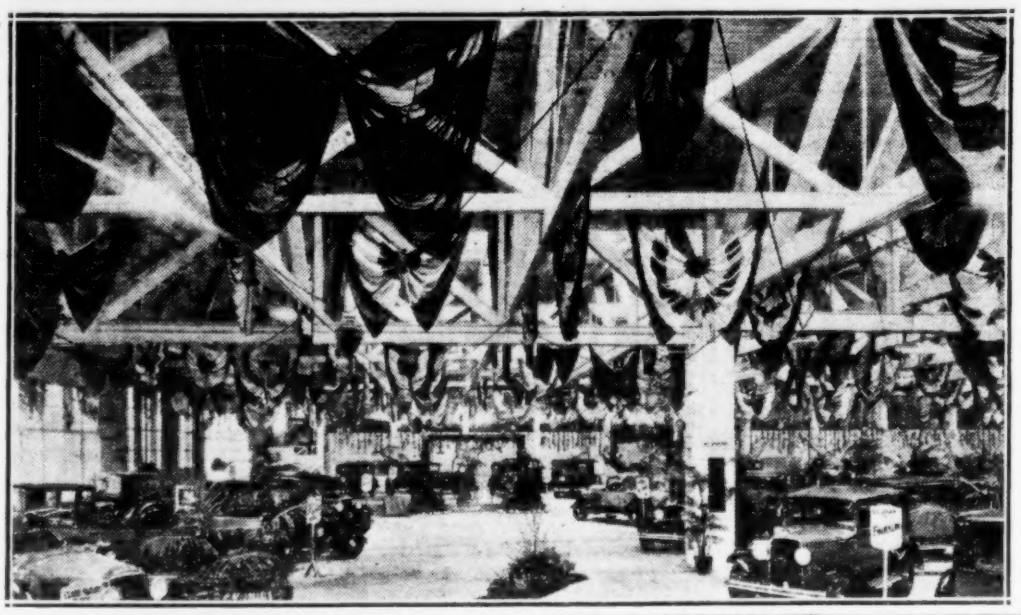
The De Soto started the year in fine fettle, as evidenced by 154 registrations. This line did not go into production until the fall of last year.

Durant is topping all previous records, ninety-three for January and February this year, compared with sixty-eight for the two months in 1928. Franklin is also showing notable gains in the high grade car field. Last year the line had twenty-seven and this year fifty-nine.

The standing for January and February this year follows:—

Ford	3,681
Chevrolet	1,796
Hudson-Essex	988
Buick	769
Oakland-Pontiac	764
Nash	618
Chrysler	606
Graham-Paige	447
Studebaker-Erskine	427
Willys Products	404
Dodge	403
Cadillac-La Salle	339
Packard	306
Oldsmobile	256
Hupmobile	214
Auburn	182
De Soto	154
Lincoln	122
Reo	104
Durant	93
Franklin	59
Peerless	50
Stutz	40
Chandler	39
Pierce-Arrow	28
Gardner	25
Marmon	24
Moon	24
Jordan	20
Stearns	9
Locomobile	4
Miscellaneous	44

A View of the Recent Vancouver, B. C., Show



USED CAR SITUATION IMPROVED IN HARTFORD

Hartford, Conn., March 19.—There has been ain easing off in the used car situation in the past week or ten days that has been encouraging to the local car dealers. A canvass of the various leading dealers shows that most of them are well situated as to used cars, and that the demand holds fairly firm.

Austin J. Avery, manager of the used car department of the A. C. Hine Company, state distributor of the Oakland and Pontiac, reports a decided picking up in trade during the past week. At the John P. Nielsen & Sons Company, Chrysler distributor, it was said that used cars were selling very well, according to Allan R. Nielsen, a member of the firm. The situation with the Capitol Buick Company is said to be very satisfactory. The Delaney Chevrolet Company has had a very good month in the used car section.

DAY-ELDER SHIPMENTS 70% HIGHER THAN 1928

Irvington, N. J., March 19.—That the present year will far exceed the volume record set by the makers of Day-Elder trucks during 1928 is the prediction of F. T. MacCrae, president of National Motors Manufacturing Company of Irvington, N. J.

This opinion is partially based upon the fact that the first three months of this year will even exceed the shipments during the same period last year by from 65 per cent. to 70 per cent.

TIME PAYMENT SALES GAIN FAVOR IN HARTFORD

Hartford, Conn., March 19.—Proof that the installment plan of buying has become decidedly popular in this city is evident from the fact that since the first of the year 1,397 conditional bills of sale have been recorded in the town clerk's office.

It is also interesting to note that about 85 per cent. of these cover the purchase of motor cars.

DURANT HUNTINGTON PARK DEALERSHIP IN NEW HOME

Huntington Park, Cal., March 19.—The Huntington Park Auto Company, Durant dealer, has moved into its new home at Slauson and Pacific Avenues. C. C. Shaeffer heads the company. He was recently elected president of the Los Angeles County Durant Dealers' Association.

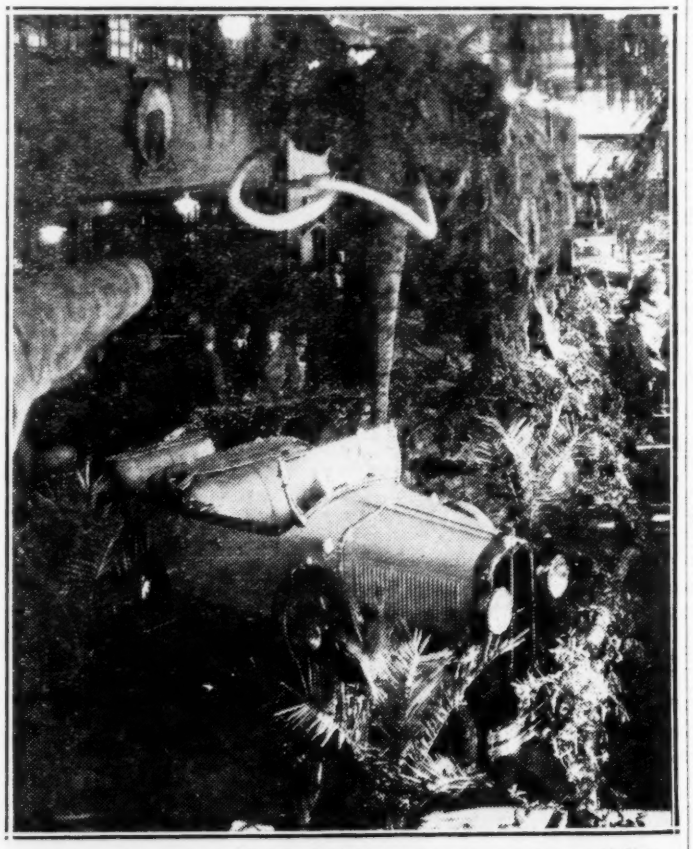
MALLON RE-ELECTED AS PRESIDENT OF N. A. T. A.

Newark, N. J., March 19.—William L. Mallon, head of the Mallon Motor Car Company, Oakland-Pontiac distributor, was re-elected president of the Newark Auto Trade Association at the annual luncheon meeting in the Washington Restaurant. Other officers re-elected were: Edward J. Foley, vice-president; R. M. Hillas, second vice-president; J. C. Bell, treasurer, and Glenn W. Tisdale, secretary. Trustees are Alfred DeCozen, Laurence T. Ward and I. C. Jones. George Thayer of the Hillas Motor Car Company, chairman of the banquet committee, announces that nearly 500 tickets have been sold for the annual event to be held Tuesday.

LOS ANGELES DURANT DEALERSHIP REORGANIZED

Los Angeles, March 19.—Reorganization of Hannan & Thompson, Durant dealer, 237 South Vermont Ave., has been effected. Hereafter it will be known as the Angeles Durant Motor Company. E. J. Thompson has transferred his partnership interest to L. C. Peacock. Thompson will continue as service manager for the reorganized company.

Transportation—Old and New



AN INTERESTING EXHIBIT depicting the history of transportation from pre-historic days down to the present was recently created in the display windows of the Richards Oakland Company in Detroit. Pre-historic mammoths recreated and brought to life were contrasted with the sleek lines of the present-day automobile. The display was one of the main attractions of the city.

A *profitable* addition

The New Pierce-Arrow Straight Eight Line

A dealer in a small but rather select community was doing an excellent business with a small car of moderate price. He felt the need of a bigger, more important car—and added the new Pierce-Arrow Straight Eight.

With comparatively small investment, and no additional overhead, this addition extended his contracts to the very best people of his community and already substantial business has been booked.

There are few points in the United States where similar opportunities still exist. For particulars, address: Mr. George E. Willis, Vice-president in Charge of Sales, Buffalo, New York.

THE PIERCE-ARROW MOTOR CAR COMPANY

PIERCE ARROW

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

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A Successful Tunnel

WHEN the four-mile-long Holland Tunnel connecting the states of New York and New Jersey was opened to traffic some months ago, the authorities budgeted the probable returns to cover operation and a sinking fund to pay for the shaft. The returns were estimated on what was considered the maximum traffic that could be expected, but the financiers did not know their motorists. The efficiency of the tunnel, the cutting down of running time between these two populous states, the elimination of waits for ferryboats, proved so alluring to motor vehicle operators that the revenue derived from the tunnel has been far more than was hoped for by the greatest optimist.

The obvious result of this has been to suggest to the authorities of both states the desirability of another underwater connecting link. Gov. Roosevelt of New York and Gov. Larson of New Jersey have met and tentatively agreed on plans for another tunnel. Legislative committees from both states attended the conference and committees were appointed to conduct a survey as to location, financing, approaches and other details looking to a new highway link.

The immediate success of the Holland Tunnel will prove interesting to other communities with interstate traffic problems similar to those that confront New York and New Jersey.

Some One Must Pay for Progress

EVERY STEP forward that is made carries with it a penalty. The general good of a community almost invariably demands payment by some individual or group of individuals.

In 1925 the city of Middletown, Conn., built an underpass for traffic, which had formerly passed over railway tracks. The old street has been closed by this underpass and traffic now proceeds with safety and dispatch, where formerly it went in danger and with delays. There is no question that the general good was served by this.

But the diversion of traffic thus effected left the store of a certain merchant high and dry, so to speak. Where traffic had formerly passed his door it now goes nowhere near him. This merchant says that his business has already been damaged to the extent of $10,000 and he has instituted suit against the city for that amount.

There is no doubt that progress should be made with as little penalty on individuals as may be, but progress is as irresistible as the tides.

No Quarrel

SPEAKING recently, Sir Henry Thornton, the leading railway magnate of Great Britain, remarked: "I have no quarrel with the automobile. If railroads took into account the revenue they derive from the automotive industry it would be found that this revenue far outweights any loss of business due to bus competition."

It was perfectly natural that the railway men should view with alarm the growth of motor bus transportation when that phenomenon first became apparent. It is entirely human to be alarmed at any competition that seems to be taking business away from our own particular suzerainty. When the bus began to show signs of popular acceptance, naturally the railway men saw only that it was taking from their trains a certain amount of revenue. They did not look far enough ahead to see the bus as the greatest feeder they ever had had and they did not stop to consider the freight revenue they were deriving from the automotive industry.

There is no quarrel between the automotive industry and the railway industry and there never will be. The two are destined to be the greatest industrial allies in history.

It's in the Air

"The automotive dealer today will be the airplane dealer tomorrow."

JOHNSTONE NEW PRODUCTION CHIEF OF ADVANCE AIRCRAFT

Jamestown, N. Y., March 19.—J. F. Johnstone of this city has been appointed general superintendent in charge of production for the Advance Aircraft Company, Troy, O. Mr. Johnstone has had a wide experience in factory management, and has had a number of years' experience as production manager in the automotive field. P. J. Taft, Washington, D. C., has been made assistant sales manager of the company.

THREE AVIATION COMPANIES MERGED AT MEMPHIS, TENN.

Memphis, Tenn., March 19.—Memphis' three aviation companies have announced their merger into the Consolidated Memphis Aviation Interests, capitalized at $500,000. The company proposes to enter a bid for Class A1 aviation service and air school on the new municipal airport. Final details were closed at a conference of Capt. Vernon C. Omlie and Mrs. Phoebe Omlie of the Mid-South Airways, Inc.; Mike McCuing of the Memphis Aviation and Transport Company, and H. T. Dawkins of the Tri-State Airways.

AIRCRAFT INVESTMENT CORPORATION FORMING

Wichita, Kan., March 19.—Organization of the Wichita Aircraft Investment Trust Corporation, a holding concern to offer small investors diversification in airplane stocks, is practically completed here, and buying orders already have been placed for the new company by its agent, C. V. Newman. The new company will not do a brokerage business, but the board of control will buy aircraft shares in manufacturing concerns, airways, aviation schools and similar airplane industries.

SAUL AIRCRAFT CORP. TO BUILD TRIAD IN IOWA

Carroll, Ia., March 19.—The Triad, a three-motored, four-passenger cabin monoplane, will be manufactured here by the newly organized Saul Aircraft Corporation, which has been incorporated with $125,000 capital, of which W. I. Saul is president.

CAR DEALER BUYS AIRPORT SITE AT ANAHEIM, CAL.

Anaheim, Cal., March 19. — A forty-acre tract has been leased by the Frahm Oldsmobile Company to be developed as an airport. The tract is within the city limits, and is expected to be the home port for eight locally owned planes. Hangars are to be erected immediately. The field provides a 2,600-foot runway.

H. O. WITTPENN APPOINTED TO N. J. HIGHWAY BOARD

Trenton, March 19.—Former Mayor H. Otto Wittpenn of Jersey City, now of Hoboken, has been appointed by Gov. Morgan F. Larson as a member of the State Highway Commission, to succeed Percy H. Stewart.

Avers Used Car Situation No Longer Dealer Problem

Editor, Automotive Daily News:—

We have read with interest various communications addressed to your worthy paper concerning the used car situation.

We have been in business since 1911, have gone through all sorts of ups and downs, have made and lost money.

I would like to refer to an article written by H. H. Heaps, president of the Superior Motors Company, Hutchinson, Kan., which we think covers the situation very clearly, with possibly a few of the following suggestions: This same plan, the writer brought to the attention of our local Automobile Dealers' Association about one year ago, but, of course, this was taken as a matter of course and handled likewise. The automotive manufacturers must realize that the distributor and dealer organization of America will not make money. This is not a joke.

I remember, on several occasions the used car situation was mentioned to various manufacturers that we have done business with and the buck was always passed. To the writer's notion, the buck has been worn out. It has been passed and repassed and the time has come when it is not a dealer proposition.

The dealers as a whole are not in a position to dictate to the public about their old used cars. The manufacturer is producing better and better automobiles every year, giving the public more for their money than they ever have, and, on the other hand, reducing the discounts, cutting off the territories, reducing prices, lessening the chances for the distributor or the dealer to make money. This condition cannot exist much longer. The manufacturer will soon realize that he will be compelled to raise the price of automobiles.

Taking automobiles as a whole, dollar for dollar, value for value, and pound for pound, the public is getting more for the dollar they spend in a new automobile they get today than any other line of merchandise.

The automobile manufacturers are making money, the distributors and dealers are losing money. The public is the winner.

Now, let us analyse the situation as it is. Who makes the money out of the new car? First, the manufacturer; second, the finance company; third, the dealer is the goat. To the writer's notion, if this condition will exist a few more years, it will be impossible to interest capital to wholesale or retail automobiles. Distributors with their territories being cut will naturally have to curtail their expenses and overheads. The dealer likewise. The answer will be, small dealers handling but few automobiles at a time will be compelled then to carry the load that the larger and more successful dealers and distributors are now carrying; then, at that time, the manufacturer will find out that his little dealers with the small territories will not have sufficient capital to carry the burdens. The answer will be, the factories will then carry the load.

I would like to refer to this article of Mr. Heaps, in this way, having in mind a raise of price to the public, not to the distributors and dealers, and then handled by a reserve just as outlined and settled monthly, or, however, it might be with the dealers and distributors proportionately to what cars they have bought, which would be fair and square.

If the manufacturers would get together and, say, each and every one take their list price basis as of today, they could decide that one or two at a time raise their prices, say 10 or 15 per cent., which is not an advance on the distributor or dealer, but merely in the eyes of the public. This differential can be set up to take care of the old junk cars, so called, get them off the market and allow the dealer and distributor to make money.

To the writer's notion, it would be much easier for the small number of manufacturers who control the situation today to get together than it would be for the distributors and dealers all over the United States to get together. This is an utter impossibility and will never be done. But so long as the manufacturers continue to wash their hands of the entire situation and there are demands for more orders for new cars, with the dealers and distributing organizations absorbing the losses, this cannot last forever.

There must be something done in order that the dealer organizations can make money. The manufacturers should not lose the money, the distributors and dealers should not lose the money, so why not make the public pay the bill? The public pays the bill in everything else except in automobiles.

CAPITOL CAR COMPANY,
H. J. Kiel, Secretary-Treasurer.
Wheeling, W. Va.

FORUM

The Automotive Daily News is glad to receive letters from its readers on topics pertaining to the trade and to publish such as seem to have general interest. Obviously the Automotive Daily News must disclaim responsibility for views expressed by its readers.

FORD'S LONG BEACH, CAL., PLANT CONTRACT AWARDED

Long Beach, Cal., March 19.—Word has been received here that contracts for the piling and foundation work of the Ford Motor Company's Long Beach assembling plant will be awarded within a week. The plant will cost about $2,000,000 and be completed by March 30, 1930. After the completion of the local plant it will handle all of the assembly work now being done at the Los Angeles plant.

WILLARD PLANS HUGE PLANT IN CALIFORNIA

Los Angeles, March 19.—A ninety-day option has been taken on a ten-acre site in South Gate by the Willard Storage Battery Company. Plans have been partially completed for a plant to cost between $500,000 and $1,000,000 on this or some other Pacific Coast factory site.

CALENDAR OF COMING EVENTS

MARCH

15-24—**Geneva, Switzerland.** Automobile show.
17-28—**Marseilles, France.** Automobile Show.
16-23—**Quebec, Canada.** Automobile show at Drill Hall.
17-23—**San Diego, Cal.** Automobile show.
20-23—**Verona, N. J.** Automobile show.
20-23—**Ogdensburg, N. Y.** Automobile show.
20-24—**Kenosha, Wis.** Automobile show.

APRIL

3- 5—**Cincinnati, O.** Marketing Executives' Conference.
4-15—**Nantes, France.** Commercial Car show.
6-21—**Lille, France.** Commercial Car show.
12-27—**Milan, Italy.** Truck show.
20-23—**Jugo-Slavia.** Automobile show.
6-24—**Detroit, Mich.** Second Annual All-American Aircraft Show at Convention Hall.
17-19—**Baltimore, Md.** National Foreign Trade Council meeting.
22-29—**Goldsboro, N. C.** Automobile show.

MAY

1- 3—**Detroit, Mich.** American Society of Mechanical Engineers' convention.
2-11—**Melbourne, Australia.** Automobile show.
13-15—**Chicago, Ill.** National Highway Traffic Association, annual convention.
30—**Le Mans, France.** French Grand Prix.

JUNE

25-28—**Saranac Lake, N. Y.** Society of Automotive Engineers' summer meeting.

JULY

16-27—**London, England.** Olympia International Aircraft show.

OCTOBER

3-13—**Paris, France.** Automobile show.
17-26—**London, England.** Automobile show.
23-30—**Prague, Czecho-Slovakia.** Automobile show.

NOVEMBER

4- 9—**Chicago, Ill.** Motor and Equipment Association show.
7-16—**London, England.** Truck show.
11-16—**Detroit, Mich.** National Standard Parts Association show and convention.
14-24—**Paris, France.** Truck show.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

In St. Louis
HOTEL MAYFAIR
In the center of business, theatre and shopping district—with a quiet, exclusive atmosphere and unusual features that make it decidedly *an hotel of distinction.*
400 ROOMS BATHS from $3.00
8th and St. Charles
HEISS HOTEL SYSTEM
OWNERS AND OPERATORS

Latest Engineering News of the Industry

Diesel Discussions Waxing Warm All Over the Country

NO AUTOMOTIVE engineering meeting program is complete these days without its Diesel discussion. The interest spreads from coast to coast and in fact is occupying the limelight in Europe just as much as it is in this country. As one speaker put it last week, the light weight Diesel engine is just emerging from the experimental laboratory. Up to ten years ago the Diesel referred chiefly to low speed, up to 200 r. p. m. There are now on the market a number of types suitable for motor-generator sets, tractors, road machinery and marine engines of moderate speed. These machines turn over from 800 to 1,000 r. p. m.

Lack of flexibility seems to be still the main drawback, according to D. W. R. Morgan of the Westinghouse Electrical and Manufacturing Company, who spoke recently in Philadelphia. They are heavier and considerably more expensive than the gasoline engine and lack the reliability and all around satisfaction from an operating standpoint that characterizes the lighter engine. Mr. Morgan mentioned that in the past few years one maker had placed on the market a Diesel engine that in external appearance approximates the automotive gasoline engine.

These are built in large sizes, however, and it is rather significant that the builder is not pushing their use for strictly automotive purposes. This is probably due, according to Mr. Morgan, to a realization of the difficulties outlined above.

On the other hand, L. T. Pockman of the Chicago Pneumatic Tool Company, bids us hope in a paper recently presented on the other coast. Speaking before a meeting of the Southern California section of the S. A. E., he states that motorcycles equipped with single-cylinder Diesel engines are being operated all over Continental Europe, and today a German or other Continental engine that can be put under the hood of a motor vehicle is on the market.

L. M. Griffith of the Aero Engine will meet automotive requirements is not a dream, according to Mr. Pockman, who predicted that many of his hearers would be using trucks equipped with such engines next year, thus saving much in fuel cost. L. A. Garrett of Fairbanks, Morse & Co., had some interesting remarks to make at the same meeting on two-cycle Diesel engine possibilities.

L. M. Griffith of the Aero Engine Company, Bell, Cal., believes that the development of large planes carrying seventy-five or more passengers would open up great possibilities for the Diesel engine in the aircraft field. Such planes, he pointed out, would require from six to twelve of the present type of engines. Therefore, to him the solution is in the development of larger power plants of the Diesel type.

E. T. Vincent, recently of the Beardmore Company of Great Britain, and now of the Emsco organization, expressed great confidence at the same southern California meeting in the success of the Diesel for aircraft engines. He showed slides of Beardmore engines to be used in the British airship R-101.

On the other hand, there are many engineers who share the pessimistic or rather conservative views of Mr. Morgan. John Sturgess, research engineer of the Hughs Tool Company, is one of them.

THE K-O MANUFACTURING
CINCINNATI, O.

This company is marketing through Earle V. Hannecke, Inc., 247 Park Ave., New York city, the new K-O universal oil filter, which will fit all cars and for which refills may be purchased at 50 cents each. In the K-O filter the oil is passed through two sets of felt and two metal screens. Any foreign substances or water escaping the felt filters is accumulated in a sediment compartment bottom, which is protected by baffle fins which prevent any agitation of the sediment. The filter with original filler is priced $3.50.

FAULTLESS RINGS USE LEAF-TYPE STABILIZERS

Miami, March 19.—(U. T. P. S.)—The Faultless piston ring, a newly developed type for automobile, truck, marine, tractor, aero and stationary engines, is being made in Miami. The manufacturers are the Faultless Piston Ring Company, located at 1234 N. E. 2d Ave. The Faultless rings are destined to stop piston slap, oil pumping and loss of power. It is claimed for Faultless piston rings that they will seal the groove against oil or compression leakage regardless of the amount of ring groove wear. A piston stabilizer, each leaf of which, made of imported Swedish steel, forces the piston ring against the cylinder wall, takes up irregularities in cylinders due to wear. Each leaf is flexing, giving a gentle, resilient pressure of ring against cylinder wall, thus forming a cushion and eliminating slap of worn pistons.

Chrome-Nickel Alloy Now Used In Reo Engines for Speed Wagons

Chrome-nickel alloy cylinder blocks are now used on the Reo engine employed for the Speed Wagon. It is claimed that this alloy has seven times the endurance qualities of the close-grained iron commonly used.

It is claimed that valve grinding, valve seat wear and valve tappet adjustment are greatly reduced by the use of this chrome nickel alloy.

In all trucks of medium capacity requiring both speed and hauling power, the rear axle gear ratio used is somewhat lower than passenger car requirements, therefore, the engine must turn a higher rate of speed, hence the valve seats have a tendency to pound down and deteriorate faster; and with more piston travel per mile, the wear of cylinder block is comparatively greater. This new chrome-nickel alloy, to the Reo formula, is claimed to impart much longer life and greater endurance.

PROTRACTOR ATTACHMENT FOR NEW B. & S. TOOL

Rule depth gauge number 616 recently announced by the Brown & Sharpe Manufacturing Company of Providence, R. I., has the additional feature of an easily adjusted protractor, as illustrated.

As a protractor the blade of the gauge is easily locked at any angle in relation to the head by the larger of the two clamp nuts on the front side of the head. The turret is graduated every 10 degrees from 0 to 90 degrees.

The smaller clamp nut on the front side of the head locks the blade for use as a depth gauge.

The six-inch blade is graduated in 32ds and 64ths of an inch, English measure or in millimeters and half-millimeters, metric measure.

New Device on Dash Will Warn Driver When Gasoline or Oil Is Low

Cleveland, March 19.—Manufacture of an antomobile dashboard instrument that will warn of a shortage of fluid in the gasoline tank, the oil tank and the radiator has been started here by the Dickey-Grabler Company, 10302 Madison Ave.

Warning is given by a set of lights. In the case of the gasoline tank and oil tank, there is an adjustible setting. If a motorist wants to be warned when his supply of gasoline is down to one gallon, he sets his gauge at that point. When the supply in the tank falls to that point a red light is flashed on the dashboard, and it remains burning until the supply is replenished. A blue light, usually regulated at the two quart point, will serve to show lowness in the oil tank, and a white light signals a shortage in the radiator.

SEIBERLING LATEX HAS A DISTRIBUTOR RAIN SHIELD

A rubber shield to fit over the distributor and protect it against rain, snow, water, moisture, oil and dust accumulations is being manufactured and marketed by the Seiberling Latex Products of Akron, O., under the name of the Vaughn Igition Protector.

According to the manufacturers of this device, there is considerable loss of current due to moisture even though the driver does not notice that he is getting an intermittent miss. The protector is made so as to permit air to enter, thus preventing condensation inside. It is made in five sizes, the smallest selling for 60 cents and the largest listing at $1.

SCHRADER DISTRIBUTING TIRE-INFLATION DISCS

As a result of an analytical compilation of facts and figures just finished by A. Schrader's Son, Inc., valve and gauge makers, Brooklyn, N. Y., complete information on the proper air pressure for every size and type of tire used on different makes of automibiles is available at one source. The results of the study are being offered the public in the form of "tire discs," which Schrader is furnishing motorists without cost.

Antomobile owners are being advised that they will be supplied with discs for each of their tires if they will inform Schrader what make, model and year of car they drive and also tell what size tires they are using.

The discs, which are made of transfer paper, have been designed to fit on the wheel felloe near the tire valve so they will be in a convenient place when it is necessary to refer to them. They are about an inch and a half long and three-quarters of an inch wide, being cut oval in shape.

A new era in motor car merchandising is about to begin. The story of the idea behind Jordan Distributors, Inc. will be interesting to all dealers, but specially those from Maine to Virginia.

Edward S. Jordan
President

Jordan Motor Car Company, Inc., Cleveland.

P.S. ***Write the factory.***

Chain Group Puts Over Two All-Night Sales in February

Philadelphia, March 19.—An All-Night Sale," starting at 7 on each of two evenings and continuing till 3 the following mornings, was entirely new and successful merchandising feature used by the Quaker Auto Supply Stores of this city, a chain organization of eight units, to create two extra days' business for the short month of February.

The event, advertised only in evening newspapers on the first day of the sale, as was intended, took the city and trade by surprise, causing widespread comment and therefore helping to draw crowds. The unusual sales atmosphere created by the "stunt," together with the specially low-priced offerings and the manner in which the regularly priced merchandise was displayed, resulted, according to officers of the company, in a volume more than four times that of the average sales for a similar period, this in spite of a heavy blizzard throughout the first day.

How the "all-night sale" was put across makes interesting reading. J. D. Milnazik, president, and Theodore Rovins, secretary-treasurer, the active control members of the organization, which has a department of radio, as well as of automotive supplies, in preparing for the event, scheduled it so that the second day of the sale, likely to be the best, would fall on Washington's Birthday, when the holiday crowds would have leisure.

To four of the stores—those, respectively, at 928 Uorth Broad St., 3718 North Broad St., 4116 Kensington Ave. and 7290 Woodland Ave.—carefully chosen so that as a group they would cover a comprehensive "sales drive" territory, were assigned a particular selection of "all-night specials, while the other four stores —at 55th and Chestnut Sts., 2032 E. Chelten Ave., 4630 North 5th St. and 1223 Haddon Ave., Camden, N. J.—sold all-day and all-night specials, these, however, being entirely exclusive of the specials offered at the first-mentioned group of stores. On Saturday specials were sold by the second group only in the daytime.

In anticipation of a rush, stock in large quantities was supplied in advance to each store. Certain radio items were included in the specials.

The four stores holding the sale of "all-night specials" were elaborately decorated, both on the selling floor and in the display windows, the latter being painted over in white, with the announcement in large red letters, "all-nite sale" and being thus entirely screened with the exception of a two-foot space all across the bottom portion, within which area items of stock, especially low-priced, were exposed to view with plain price cards attached. Banners and window strips announcing the sale also appeared on the windows and inside rows of bright banners were suspended overhead, bearing such catchy and appropriate phrases as: "You Lose If You Sleep," "Aren't You Glad You Stayed Awake?" "Our Loss Your Gain," and so on.

The entire arrangement was such as to create a high-pressure sales atmosphere. Boxes of a wide range in size and shape were displayed, filled with merchandise of strong selling appeal, each bearing a price card in large figures, and there were tables piled with items of stock attractively priced, so that as many as fifty items were being pushed simultaneously.

The stocks had been carefully selected to give a maximum of satisfaction,and where, for example, special items for Ford cars were offered, they were of such a type as to have an appeal to virtually all Ford car owners.

Nine extra salesmen from outside, men who sell for manufacturers and jobbers and who know the lines carried by the company, were pressed into service for the sale and, counting salesmen transferred for the purpose from the other group of stores owned by the company, there were twenty extra men assigned to stores holding the special "All-Night Sale." The salesmen were divided into crews after midnight, leaving three men at each of the four stores to wait on late customers. The company arranged with the neighborhood restaurants patronized by the employees of the Quaker stores to supply them liberally with coffee and sandwiches at 10 p. m. each night of the sale. Normally, the Quaker stores are open continuously till 10 at night; but for the event they closed at 5 for two hours, the men returning from their rest period at 6.45 and the doors being again opened to the public, to remain open until 3 next morning.

As had been planned, by no means all the selling was confined to the specials, much regularly priced stock and slow-moving items being sold, as well, wherein lay the bulk of the profits. Early analysis showed that Friday, the second day of thesale, as expected, was the most productive, and that the best night hour was from 11 to 12, when the theaters and motion picture houses had let out and when night workers were out for their lunch period.

Because of the carefully planned "spreading" for the sales drive, the "all-night sale" stores did about equally well in sales volume. The response was much greater, as a whole, than had been anticipated by the company officials, who, on Thursday, when the blizzard broke, thought the event was all off, and even considered canceling the sale for a week.

"We are glad we didn't do so," said Mr. Rovins, "and we can say we are thoroughly satisfied with our experiment."

One Millionth AC Fuel Pump Comes Off the Line

WHEN THE ONE MILLIONTH fuel pump came off the assembly line the other day, the AC officials shown in the photograph were on hand for the event. The first pump was produced less than two years ago. Left to right: Louis Berg, manager of manufacturing; Harlow H. Curtice, vice-president and assistant general manager; Joseph Zubaty, chief engineer; Wilson S. Isherwood, general sales manager, and Earl McGinnis, advertising manager.

WESTINGHOUSE LAMP CO. AWARDS $500 PRIZE FOR INSIDE COLORING METHOD

Bloomfield, N. J., March 19.—Albert H. Lindstrom, mechanical and metallurgical engineer of the Westinghouse Lamp Company, has been awarded a first prize of $500 for the outstanding accomplishment in the lamp making industry for 1928. Mr. Lindstrom's achievement was a method of inside coloring for lamps or, in other words, turning a bulb inside out.

The process of manufacturing consists in spraying clear bulbs on the inside with a material somewhat similar to that formerly sprayed on the outside. The sprayed bulbs are then sealed into lamps in accordance with standard lamp manufacturing practice. This Westinghouse accomplishment has permitted the company to introduce to the industry an advancement in the art of colored lamp making.

According to plant officials, this new method of lamp coloring, together with the radio tube business, has increased the production demands of the Bloomfield plant 100 per cent.

Since the first of the year, Westinghouse has added 1,500 employees to the payroll and will further increase the employment roster another 1,000 during the coming month. Production demand calls for monthly deliveries of radio tubes and light bulbs up until the end of the year.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

Passenger Car Equipment and Accessories

Name and Model	Speedometer	Clock	Fuel Gauge on Dash	Lock	Spark Plugs	Battery	Heat Indicator	Cig. Lighter	Smoking Set	Vanity Set	Make of Body Finish Used	Stop Light	Parking or Side Light	Windshield Wings	Heater	Front Bumper	Rear Bumper	Wire Wheels	Shock Absorber
Auburn 8-90 ...	Ste	—	K-S	Ele	Cha	U S L	Mot-M	Yes	G R	—	Mur	Ind	Ind	—	*Gla	Balc	Balc	Day	Lov
Auburn 6-80 ...	Ste	—	K-S	Ele	Cha	U S L	Mot-M	—	—	—	Mur	Ind	Ind	—	*Kel	Balc	Balc	Day	Lov
Auburn 120	Ste	—	K-S	Ele	Cha	U S L	Mot-M	Cuno	G R	—	Mur	Ind	Ind	—	*Gla	Balc	Balc	Day	Lov
Blackhawk 6 ...	Ste	Borg	Mot-M	DR	Cha	Pre	Mot-M	Yes	Lin	Lin	Val	Ind	Ind	Kok	—	Buck	Bad	Buffalo	Lov
Blackhawk 8 ...	Ste	Borg	Mot-M	DR	Cha	Pre	Mot-M	Yes	Lin	Lin	Val	Ind	Ind	Kok	—	Buck	Bad	Buffalo	Lov
Buick 116	A C	—	K-S	Her	A C	Ex	A C	Cuno	Fis	Fis	Duc	DR	DR	—	—	—	—	Buffalo	Lov
Buick 121	A C	—	K-S	Her	A C	Ex	A C	Cuno	Fis	Fis	Duc	DR	DR	—	—	—	—	Buffalo	Lov
Buick 129	A C	—	K-S	Her	A C	Ex	A C	Cuno	Fis	Fis	Duc	DR	DR	—	—	—	—	Buffalo	Lov
Cadillac	A C	Jag	Nag	DR	A C	Ex	A C	Yes	Tern	Tern	Duc	Own	Hal	DR	*Kel	USE	USE	Buffalo	Lov
Chevrolet AA...	A C	—	—	°Ign	A C	*Wil	Safe T	—	Fis	—	Duc	DR	DR	—	°Own	†Own	Own	—	—
Chrysler 65	N E	—	Mot-M	Sha	A C	Wil	—	—	AWS	AWS	Duc	*Hal	*Hal	Per	—	Yes	Yes	MotoW	Lov
Chrysler 75	A C	—	Mot-M	Ele	Cha	Wil	Mot-M	—	AWS	AWS	Duc	*Hal	*Hal	Per	—	N M	N M	MotoW	Lov
Chrysler 80	A C	Ster	Mot-M	Ele	Cha	Wil	Mot-M	Yes	AWS	AWS	Duc	*Hal	*Hal	Per	—	N M	N M	MotoW	Hou
De Soto	N E	—	Mot-M	Sha	Cha	Wil	—	—	AWS	AWS	Duc	*Hal	†Hal	Per	—	Yes	Yes	MotoW	Lov
Dodge Six	N E	—	Mot-M	N E	Cha	Wil	Mot-M	—	—	—	—	*Hal	*Hal	—	—	—	—	—	Lov
Dodge Senior 6.	N E	—	Mot-M	N E	Cha	Wil	Mot-M	—.	G R	G R	—	*Ind	*Hal	—	—	—	—	—	Lov
Durant 40	Ste	—	Roc	—	Cha	U S L	—	—	—	—	VEP	Cor	Cor	Kok	—	Ste	Ste	Budd	Wat
Durant 60	Ste	—	Nag	—	Cha	U S L	—	—	—	—	VEP	Cor	Cor	Kok	—	Ste	Ste	Budd	Wat
Durant 66	Ste	—	Nag	Sha	Cha	U S L	Safe T	—	—	—	VEP	Cor	Cor	—	—	Ste	Ste	Budd	Wat
Durant 70	Ste	—	Nag	Sha	Cha	U S L	Safe T	N E	—	—	VEP	Cor	Cor	—	—	Ste	Ste	Budd	Wat
Elcar 6-75	Ste	—	Mot-M	Sha	Cha	U S L	Mot-M	—	—	—	Mur	Hal	Hal	—	—	Ste	Ste	—	Con
Elcar 8-95	Ste	—	Mot-M	Sha	Cha	U S L	Mot-M	—	—	—	Mur	Gui	Gui	—	—	Ste	Ste	—	Con
Elcar 8-96	Ste	Borg	Mot-M	Sha	Cha	U S L	Mot-M	Yes	—	—	Mur	Hal	Hal	—	Per	Ste	Ste	—	Con
Elcar 8-120	Ste	Borg	Mot-M	Sha	Cha	U S L	Mot-M	Yes	—	—	Mur	Hal	Hal	—	Per	Ste	Ste	—	Con
Essex Chal'g'r .	Ste	—	Mot-M	Ele	A C	Ex	Mot-M	—	—	—	Ditz	JB	—	—	—	U S	U S	MotoW	Mon
Ford A	Ste	—	Own	Ele	Cha	Own	—	—	—	—	—	Yes	—	—	—	—	—	Own	Hou
Frank'n Air. Ltd.	N E	Jag	Nag	Ele	Cha	U S L	—	Yes	G R	G R	*Duc	JB	JB	—	Kel	CG	CG	—	Wat
Gardner 130 ...	Ste	Phi	Mot-M	DR	Cha	Pre	Mot-M	Cuno	G R	—	Ditz	Cor	Cor	—	—	Balc	Balc	—	Lov
Gardner 125 ...	Ste	—	Mot-M	DR	Cha	Pre	Mot-M	—	—	—	Ditz	Cor	Cor	—	—	Balc	Balc	—	Lov
Gardner 120 ...	Ste	—	Mot-M	DR	Cha	Pre	Mot-M	—	—	—	Ditz	Cor	—	—	—	CG	CG	—	Lov
Graham-Pg. 612.	N E	—	K-S	Her	Cha	Wil	Mot-M	—	G R	G R	Clev	Hal	Hal	—	—	Ste	Ste	MotoW	Lov
Graham-Pg. 615.	N E	—	K-S	Her	Cha	Wil	Mot-M	—	G R	G R	Egyp	Hal	Hal	—	—	Ste	Ste	MotoW	Lov
Graham-Pg. 621.	N E	—	K-S	Her	Cha	Wil	Mot-M	Yes	G R	G R	Ditz	Hal	Hal	—	—	Ste	Ste	MotoW	Hou
Graham-Pg. 827.	N E	—	K-S	Her	Cha	Wil	Mot-M	Yes	G R	G R	Ditz	Hal	Hal	—	—	Ste	Ste	MotoW	Hou
Graham-Pg. 837.	N E	—	K-S	Her	Cha	Wil	Mot-M	Yes	V S	V S	Ditz	Hal	Hal	—	—	Ste	Ste	MotoW	Hou
Hudson Conq'r .	Ste	—	Mot-M	Ele	A C	Ex	Mot-M	—	—	—	Duc	JB	—	—	—	Eat	Eat	MotoW	Wahl
Hupmobile A ..	Ste	—	Ster	Ele	A C	Wil	Mot-M	—	—	—.	Val	Hal	Hal	—	—	—	—	—	Mon
Hupmobile M ..	Ste	—	Ster	Ele	Cha	Wil	Mot-M	—	*Yes	*Yes	Val	—	Hal	—	—	—	—	—	Mon
Jordan E	Ste	—	Nag	Her	Cha	Wil	Nag	N E	V S	V S	*Duc	Ind	Ind	—	—	Eat	Eat	K-H	Hou
Jordan G	Ste	Ster	Mot-M	Her	Cha	Wil	Mot-M	N E	G R	G R	*Duc	Ind	Gui	—	—	Eat	Eat	K-H	Hou
Kissel 6-73	A C	Yes	Gro	Ign	A C	Wil	A C	Yes	Yes	Yes	Duc	Sto	—	—	Per	Bad	Bad	—	Lov
Kissel 8-95	A C	Yes	Gro	Ign	A C	Wil	A C	Yes	Yes	Yes	Duc	Sto	—	—	Per	Bad	Bad	—	Lov
Kissel 8-126	A C	Yes	Gro	Ign	A C	Wil	A C	Yes	Yes	Yes	Duc	Sto	—	—	Per	Bad	Bad	Day	Lov
La Salle	A C	Jag	Nag	DR	A C	Ex	A C	Yes	Tern	Tern	Duc	Own	Hal	DR	*Kel	USE	USE	Buffalo	Lov
Lincoln 8	Wal	Wal	K-S	Her	Cha	Ex	—	Yes	Cuno	Yes	*Duc	Own	Own	Own	—	Bif	Bif	Own	Hou
Locomobile 48 ..	Wal	Wal	Bos	Yal	Cha	Pre	—	Met	G R	G R	Duc	Aga	—	—	—	Buck	—	Buffalo	Lov
Locomobile 86 ..	Ste	N H	Mot-M	Joh	Cha	U S L	Mot-M	Yes	AWS	AWS	Duc	Hal	—	—	—	Bad	—	—	Lov
Locomobile 88 ..	Ste	N H	Mot-M	Joh	Cha	U S L	Mot-M	Yes	AWS	AWS	Duc	Hal	—	—	—	Bad	—	—	Lov
Locomobile 90 ..	Wal	Wal	U S	Yal	Cha	U S L	—	Met	G R	G R	Duc	Aga	—	—	—	Buck	—	Buffalo	Lov
Marmon 68	Ste	—	Mot-M	Sha	Cha	Nat	Mot-M	—	AWS	AWS	*Duc	Hal	Hal	Kok	—	Ste	Ste	Day	Lov
Marmon 78	Ste	Borg	Mot-M	Blos	Cha	Nat	Mot-M	Yes	AWS	AWS	*Duc	Hal	Hal	Kok	—	—	—	Day	Lov
Nash Adv. 6 ...	Ste	Borg	K-S	DR	A C	U S L	Mot-M	Yes	AWS	AWS	Duc	Hal	Hal	—	—	Bif	Bif	Budd	Hou
Nash Spec. 6 ..	Ste	—	K-S	DR	A C	U S L	Mot-M	—	G R	G R	Duc	Hal	Hal	—	—	Bif	Bif	MotoW	Lov
Nash Stand. 6 .	A C	—	K-S	DR	A C	U S L	A C	—	—	—	Duc	JB	JB	—	—	Bif	Bif	Budd	Lov
Oakl'nd All-Am.	A C	—	K-S	DR	A C	Wil	—	—	†Fis	†Fis	Duc	DR	Ind	—	—	CG	CG	MotoW	Lov
*Oldsmobile ...	A C	—	K-S	DR	A C	Wil	A C	—	Tern	—	Duc	DR	—	—	—	Own	Own	MotoW	Lov
Packard 626, 633	N E	Jag	K-S	—	Cha	Pre	Mot-M	Yes	Own	Yes	Val	Own	Own	†Yes	Kel	Cen	Yes	†Yes	Own
Packard 640, 645	N E	Jag	K-S	—	Cha	Pre	Mot-M	Yes	Own	Yes	Val	Own	Own	†Yes	Kel	Cen	Yes	†Yes	Own

Feature Displays Of Safety Devices At Motor Exhibits

Seattle, Wash., March 19.—The State Highway Department of Washington, of which William Cole is chief, has taken an active interest in automobile shows given in this state the present year, having a special exhibit at all of them. Recently the department had displays at Seattle, Tacoma, Centralia and Olympia.

Featuring the display are safety devices, including various types of headlights, spot and fog lights, while an interesting feature, that always catches the public eye, is the collection of blank license plates from practically every state in the union.

Mr. Cole and his co-workers keep abreast of the times and the highway patrol is developed to a high degree of efficiency in Washington. In some quarters there is agitation for more patrolmen in order to improve driving conditions and to keep a closer watch on violators of traffic laws, who seem to have no thought for others who must use the roads.

Washington State Highway Exhibits

ACCESSORY DEALER TO TEACH WOMEN DRIVING

Newark, N. J., March 19.—Francis B. Hague, accessory dealer, has been appointed chairman of the first women drivers' traffic safety instruction course to be given by Newark Safety Council in 1929. The appointment was announced by Harold B. Platt, chairman of the council's traffic safety committee. The course will run for five consecutive weeks.

The traffic safety course for women drivers will cover driving instructions, legal points, technical data about different operations of the modern automobile and traffic hints of value to experienced drivers as well as novices.

HOUSTON JOINS A. G. COHEN,

Hartford, Conn., March 19.—Fred R. Houston has joined the service force of Aaron G. Cohen, Inc., distributors of the De Soto and Gardner.

Takes Over Bankrupt Chain of Tire Stores And Clears $500,000

Amarillo, Tex., March 19.—Taking suggestions, bidding for suggestions from his employees, coupled with sound business methods, enabled Cal Farley, originator of Flying Dutchman service in the Southwest, to take over a small, bankrupt tire business and turn it into a chain of tire stores in two years.

Not only did he make a dozen successful businesses thrive where one had died, he made things show profit of a half million dollars the second year, not counting his expansion program!

The business is now several years old, and still growing. And how Cal Farley has made Flying Dutchman service the most talked about and used service in Texas is worth knowing.

Farley was a welterweight wrestling champion of the A. E. F. and interallied forces. He was a side kick of the retired champion, Gene Tunney; was in the same outfit with Tunney when the marine won the A. E. F. heavyweight honors.

Farley was at all of Tunney's fights when he was champion, being photographed and getting in worlds of good advertising. He wrote special articles for papers, because he was a close friend of Tunney, signed them and made his tire business better known.

Five years ago Farley took over a bankrupt tire store in Amarillo, Tex. He did it on a shoestring, but it was a shoestring business. He had one old service car and sold Star brand tires.

He started branching; seeking new ideas. He had his old car built to look like a small locomotive, which attracted attention. He started having all his signs painted, showing a doughboy chasing a comic German soldier. This was

CAL FARLEY

his first layout for Flying Dutchman service.

He moved into a larger building, hired more men—men upon whom he could depend to speak right out in church when they thought something was wrong with the business; when they had a new idea to offer.

He started bringing all his employees together at a meeting every week. Every one swapped ideas and suggestions. Some were used, upon approval of different tire station managers.

By this time, Farley had stores in a half a dozen small towns out of Amarillo. He was a big man in a big way, and becoming bigger.

He inaugurated an annual banquet for his workers and had Goodrich factory and territory managers at these banquets. This is a looked-forward-to, merry get-together, looked upon only to bind the men closer together for the benefit of the service.

In 1926, Farley's earnings were a half million dollars, this representing net profit, clear of all expense. And things are still looking up.

AUBURN WINS ICE RACES IN FINLAND

Helsinki, Finland, March 19.—An Auburn 120 won all contests on the ice speedway here in the four and five lire class in four races. The average speed was 97.205 miles per hour.

Passenger Car Equipment and Accessories

Name and Model	Speedometer	Clock	Fuel Gauge on Dash	Lock	Spark Plugs	Battery	Heat Indicator	Cig. Lighter	Smoking Set	Vanity Set	Make of Body Finish Used	Stop Light	Parking or Side Light	Windshield Wings	Heater	Front Bumper	Rear Bumper	Wire Wheels	Shock Absorber
Peerless 61	AC	—	Mot-M	Sha	Cha	USL	Mot-M	—	GR	—	Val	Cor	Cor	—	—	Bif	—	—	Lov
Peerless 81	AC	Ster	Mot-M	Ele	Cha	USL	Mot-M	—	GR	GR	Val	Cor	Cor	Kok	—	Bif	—	—	Lov
Peerless 91	AC	Ster	Mot-M	Ele	Cha	Ex	Mot-M	—	GR	GR	Val	Gui	Gui	Kok	—	Bif	—	—	Lov
Pierce-Ar'w 133.	Wal	Wal	Nag	Her	Cha	USL	—	NE	VS	VS	—	Aga	Aga	—	—	Eat	Eat	K-H	Hou
Pierce-Ar'w 143.	Wal	Wal	Nag	Her	Cha	USL	—	NE	AWS	AWS	—	Aga	Aga	—	—	Eat	Eat	K-H	Hou
Plymouth	NE	—	Roc	Sha	AC	Wil	—	—	—	—	Duc	*Hal	*Hal	—	—	CG	CG	K-H	—
Pontiac Big 6 ..	AC	—	K-S	DR	AC	Pre	—	—	†Fis	†Fis	Duc	DR	DR	—	—	CG	CG	Buffalo	Lov
Reo F. C. Mate.	Ste	—	K-S	Ele	Cha	Wil	AC	—	VS	VS	Ditz	Hal	Hal	—	—	CG	CG	—	Lov
Reo F. C. Mast.	Ste	—	K-S	Blos	Cha	Wil	AC	—	GR	GR	Ditz	Gui	Gui	—	—	CG	CG	—	Lov
St'ns-K-H 8-90.	Ste	Wal	Nag	Ele	Cha	USL	Mot-M	Yes	VS	VS	Val	Hal	Gui	—	Per	Ste	Ste	Buffalo	Hou
St'ns-K. J 8-90.	Ste	Wal	Nag	Ele	Cha	USL	Mot-M	Yes	VS	VS	Val	Hal	Gui	Yes	Per	Ste	Ste	Buffalo	Hou
St'ns-K. M 6-80	Ste	—	Nag	BS	Cha	USL	Mot-M	Yes	GR	GR	Mou	Ind	Gui	—	—	Eat	Eat	Buffalo	Hou
St'ns-K. N 6-80	Ste	—	Nag	BS	Cha	USL	Mot-M	Yes	GR	GR	Mou	Ind	Gui	—	—	Eat	Eat	Buffalo	Hou
Stud.-Erskine ..	Ste	—	K-S	Her	Cha	Wil	—	—	—	—	—	Ind	—	—	—	—	—	K-H	Mon
Stud. Dict.	Ste	—	K-S	Her	Cha	Wil	Mot-M	—	—	—	—	Ind	—	—	—	—	—	K-H	Lov
Stud. Com. 6 ..	Ste	NH	K-S	Her	Cha	Wil	Mot-M	Yes	—	—	—	Ind	—	—	—	—	—	K-H	Lov
Stud. Com. 8 ..	Ste	NH	K-S	Her	Cha	Wil	Mot-M	Yes	—	—	—	Ind	—	—	—	—	—	K-H	Lov
Stud. Pres. 125 .	Ste	NH	K-S	Her	Cha	Wil	Mot-M	Yes	—	—	—	Ind	—	—	—	—	—	Budd	Hou
Studebaker 135 .	Ste	NH	K-S	Her	Cha	Wil	Mot-M	Yes	VS	VS	—	Ind	—	—	—	—	—	K-H	Hou
Stutz M	Ste	Borg	Mot-M	DR	Cha	Pre	Mot-M	Yes	Lin	Lin	Val	Ind	Ind	Kok	—	Buck	Buck	Buffalo	Lov
Whippet Four .	NE	—	Roc	Ele	Cha	USL	—	—	—	—	Mou	Ind	—	—	—	—	—	Buffalo	Gab
Whippet Six ...	NE	—	Roc	Ele	Cha	USL	—	—	—	—	Mou	Ind	Yes	—	—	—	—	Buffalo	Gab
Willys-K. Sta. 6	Ste	—	Nag	—	Cha	USL	—	—	—	—	Mou	Ind	Yes	—	—	—	—	Buffalo	Gab
Willys-K. 70 B .	NE	—	Nag	Ele	Cha	USL	Mot-M	—	GR	GR	Mou	Ind	Yes	—	—	—	—	Budd	Wat
Windsor 6-72 ..	Ste	—	Mot-M	Joh	Cha	USL	Mot-M	—	Yes	Yes	Gli	Ind	—	—	—	Yes	Yes	—	Lov
Windsor 8-82 ..	Ste	—	Mot-M	Joh	Cha	USL	Mot-M	—	Yes	Yes	Gli	Ind	—	—	—	Yes	Yes	Yes	Lov
Windsor 8-92 ..	Ste	—	Mot-M	DR	Cha	USL	Mot-M	—	Yes	Yes	Gli	Ind	—	Yes	—	Yes	Yes	Yes	Lov

KEY TO ABBREVIATIONS USED IN THIS TABLE

GENERAL

*In addition to its regular line Oldsmobile also offers a de luxe line. De luxe equipment includes: Six wire wheels (with six tires and tubes), two wheels carried in front fender wells and securely locked in position, chromium-plated headlamps, four spring boots, folding trunk rack at rear and sheet metal (fenders, etc.) ducoed in color on those models on which ducoed sheet metal is more harmonious than is black enameled sheet metal. It is also a special line for 1929.

SPEEDOMETER

AC—AC Spark Plug Co., Flint, Mich.
NE—North East Electric Co., Rochester.
Ste—Stewart-Warner Speedometer Corp., Chicago.
Wal—Waltham Watch Co., Waltham, Mass.

CLOCK

Borg—Borg Clock Co.
Jag—Jaeger Watch Co., New York city.
NH—New Haven. See Phi.
Phi—Phinney-Walker Co., New York city.
Ster—Sterling Electric Clock Corp., New York city.
Wal—Waltham Watch Co., Waltham, Mass.

FUEL GAUGE

Bos—Boston Auto Gauge Co., Pittsfield, Mass.
Gro—Grolan Co., Dayton, O.
KS—King-Seeley Corp., Ann Arbor, Mich.
Nag—Safe-T-Stat Co., Brooklyn, N. Y., and Toledo, O.
Moto-M—Moto Meter Co., Inc., L. I. City, N. Y., and La Crosse, Wis.
Roc—Rochester Mfg. Co., Rochester, N. Y.
Ster—Sterling Electric Clock Corp., New York city.
US—U. S. Gauge Co., New York city.

LOCK

BS—Briggs-Stratton Co., Milwaukee.
Blos—Blossom, Delco Remy Corp., Anderson, Ind.
Ele—Mitchell Specialty Co., Holmesburg.
D-R—Delco-Remy Corp., Anderson, Ind.
Her—Hershey Mfg. Co., Chicago.
Joh—Johnson Automobile Lock Co., St. Louis, Mo.
N. E.—North East Electric, Rochester, N. Y.
Sha—Shaler Lock Co., Milwaukee, Wis.
*Coincidental steering gear and ignition.

SPARK PLUG

AC—AC Spark Plug Co., Flint, Mich.
Cha—Champion Spark Plug Co., Toledo, O.

BATTERY

Ex—Electric Storage Battery Co., Philadelphia.
Nat—National Lead Battery Co., St. Paul, Minn.
Pre—Prest-O-Lite Co., Indianapolis, Ind.
USL—U. S. L. Battery Corp., Niagara Falls, N. Y.
Wil—Willard Storage Battery Co., Cleveland, O.
D-R—Delco-Remy.
*Also using USL and D-R.

HEAT INDICATOR

AC—AC Spark Plug Co., Flint, Mich.
Mot-M—Moto Meter Co., Inc., Long Island City, N. Y., and La Crosse, Wis.
Safe-T—Safe-T-Stat Co., Brooklyn, N. Y.

CIGAR LIGHTER

Cuno—Cuno Engineering Corp., Meriden, Conn.
GR—Grand Rapids Metalcraft Corp., Grand Rapids, Mich.
Met—Metal Specialties Mfg. Co.
N.E.—Northeast "Hot-Heads."
†On some models.
*Closed models only.

SMOKING AND VANITY SETS

AWS—Art Metal Works, Newark, N. J.
Fis—Fisher Body Corp., Detroit.
GR—Grand Rapids Metalcraft Corp., Grand Rapids, Mich.
Lin—Linden.
V S—Van Sicklen Corp., Elgin, Ill.
Tern—Ternstedt.

BODY FINISH

Arco—John L. Armitage & Co., Newark, N. J.
Clev—Cleveland Varnish Co.
Ditz—Ditzler Color Co., Detroit, Mich.
Duc—E. I. du Pont de Nemours & Co., Philadelphia.
Egypt—Egyptian Lacquer Co.
Gli—Glidden Co., Cleveland, O.
Mou—Mountain Varnish & Color Works, Toledo, O.
Mur—Murphy Varnish Co., Newark, N. J.
Val—Valentine & Co., New York city.
VEP—V. E. P. Co., St. Louis, Mo.
*Also using Val.

STOP AND PARKING LIGHTS

Aga—Federal Pressed Steel Co., Chicago.
Cor—Corcoran Co., Cincinnati, O.
D-R—Delco-Remy Corp., Anderson, Ind.
Gui—Guide Motor Lamp Mfg. Co., Cleveland, O.
Hal—Hall Lamp Co., Cincinnati, O.
Ind—Indiana Lamp Corp., Connersville, Ind.
Sto—Stover Signal Engineering Co., Racine, Wis.
JB—John Brown Lamp Co.
*Also using Cor. †Also using Ind.

WINDSHIELD WINGS

†Not standard equipment.
Kok—Fulton Co., Milwaukee, Wis.
Per—Perfection Heater & Mfg. Co., Cleveland, O.
DR—Delco-Remy.

HEATER

Gla—Gladiator Mfg. Co., Auburn, Ind.
Kel—Kelch; made by Grand Rapids Metalcraft Corp., Grand Rapids, Mich.
Per—Eaton Axle & Spring Co., Cleveland.
*Special equipment.

BUMPERS

Bad—Badger Mfg. Corp., Milwaukee.
Balc—Cincinnati Ball Crank Co., Cincinnati, O.
Bif—Biflex Corp., Waukegan, Wis.
Buck—See Cen.
Cen—Central Brass & Fixture Co., Springfield, O. Also makers of Buckeye bumpers.
CG—CG Spring & Bumper Co., Detroit.
Eat—Eaton Axle & Spring Co., Cleveland.
NM—New Method.
Ste—Stewart-Warner Speedometer Corp., Chicago.
US—United States Chain Co.
USE—U. S. E. Corp., Long Island City.
†Extra equipment.
*Also using Eat.

WIRE WHEELS

†Not standard equipment.
Budd—Budd Wheel Co.
Moto W—Motor Wheel Corporation.
Day—Dayton Wire Wheel Co., Dayton, O.
K-H—Kelsey-Hayes.
Buffalo—Wire Wheel Corporation of America, Buffalo, N. Y.

SHOCK ABSORBER

Con—Continental Motors.
Gab—Gabriel Snubber Mfg. Co., Cleveland.
Hou—Houde Engineering Corp., Buffalo, N. Y.
Lov—Delco-Remy Corp., Anderson, Ind.
Mon—Monroe.
Wat—John Warren Watson Co., Philadelphia.

MAJOR SPECIFICATIONS AND MECHANICAL DETAILS OF

Make and Model	Capacity—tons	Chassis price	Engine	No. of Cyl.	Bore and Stroke	Tax H. P.	Oil System	Carburetor	Fuel Feed	Ignit. System	Gearset	Location	No. Spds. for.	Rear Axle	Final Drive	Reduction in Low	Brakes, foot	Brakes, hand	Standard Wheel Base	Chassis Weight	Standard Tire Sizes Front	Rear
Am. La France Chief	2-2½	2850	Own	6	3¾x5	33.7	F P	Zen	Vac	Rem	Own	C	4	Own	Wo	51.2	4	R	156	5600	32x6	32x6 D
**Am. La France W	3-4	3950	Own 2 R	4	4¼x6	28.9	P&S	Zen	Vac	A B	Own	C	4	Own	D R	47.4	D	R	160	7200	S 36x5	S 36x5 D
Am. La France S	4-4½	5200	Own 5 R	4	4¾x6	36.2	P&S	Zen	Vac	A B	Own	C	4	Own	Wo	54.4	D	R	165	8900	S 36x6	S 36x6 D
Am. La France V	5	5500	Own 5 R	4	4¾x6	36.2	P&S	Zen	Vac	A B	Own	C	4	Own	Wo	54.4	D	R	165	9800	S 36x6	S 40x6 D
Am. La France Z	6½	5750	Own 5 R	4	4¾x6	36.2	P&S	Zen	Vac	A B	Own	C	4	Own	Wo	63.5	D	R	165	10000	S 36x7	S 40x7 D
Am. La France U	7½	6000	Own 5 R	4	4¾x6	36.2	P&S	Zen	Vac	A B	Own	C	4	Own	—	63.5	D	R	165	10500	S 36x7	S 40x8 D
Am. La France 14 R	5	6000	Own 14 R	4	4¾x6	36.2	P&S	Zen	Vac	A B	Own	C	4	Own	D R	34.3	D	R	226	9100	40x8	40x8 D
Am. La France 16 R	5	6500	Own 16 R	6	4½x6	105	P&S	Zen	Vac	A B	Own	C	4	Own	D R	32.8	4	R	226	10400	40x8	40x8 D
Autocar [illegible]	1½	2700	Own	6	3¾x4½	33.8	Pb	Zen	Vac	L-N	Br-L 35	U	4	Own S A	Sp	27.9	4	R	150	3900	32x6	32x6
Autocar [illegible]	2	3000	Own	6	3¾x4½	33.8	Pb	Zen	Vac	L-N	Br-L 35	U	4	Own S D	D R	33.9	4	R	150	4850	32x6	32x6 D
†Autocar H	3	3750	Own	4	4½x5½	32.4	C S	Str	Vac	A B	Own T	U	4	Own H	D R	47.8	R	R	114	5800	34x5 S	36x10 S
†Autocar S H	3	4000	Own	6	4⅛x4¾	40.8	Pb	Str	Vac	R B	Own T	U	4	Own H	D R	47.8	R	R	114	5800	34x5 S	36x10 S
Autocar T	3	5000	Own	6	4⅛x4¾	45.9	Pb	Str	Vac	R B	Own T	U	4	Own T	D R	40.7	R	R	187	7100	36x8	36x8 D
†Autocar H S	3½	4100	Own	4	4½x4¾	32.4	C S	Str	Vac	A B	Own T	U	4	Own J	D R	55.2	R	R	114	6900	34x6 S	36x12 S
†Autocar S H S	3½	4400	Own	6	4⅛x5½	45.9	Pb	Str	Vac	R B	Own T	U	4	Own J	D R	55.2	R	R	114	7000	34x6 S	36x12 S
Autocar T S	3½	5350	Own	6	4⅛x4¾	45.9	Pb	Str	Vac	R B	Own T	U	4	Own J	D R	46.5	R	R	187	7100	36x8	36x8 D
Autocar S C M	5	5000	Own	6	4½x4¾	48.6	Pb	Str	Vac	R B	Own B	C	4	Own M	D R	72.1	R	R	162	8600	34x7 S	36x14 S
Brockway Junior	1	1195	Wis C	4	3¾x5	22.5	Pb	Zen	Vac	Aut	Br-L 20	U	3	Col 36001	Sp	21.27	4W	Tr	130	3100	30x5	30x5
Brockway J F	1	1195	Wis F	6	3¼x4¼	25.4	Pb	Zen	Vac	Aut	Br-L 20	U	3	Col 36001	Sp	21.3	4W	Tr	137	3450	30x5	30x5
Brockway C J B F	1½	1475	Wis F	4	3¼x4¼	25.4	Pb	Zen	Vac	Aut	Br-L 20	U	3	Col 54030	Sp	21.3	4W	Tr	149	3650	32x6	32x6
Brockway E	1½	1765	Wis S U	4	4 x5	25.6	Pb	Zen	Vac	L-N	Br-L 30	U	3	Col 55001	Sp	21.0	4W	Tr	139½	3650	32x6	32x6
Brockway E N	1½	1965	Wis N	6	3½x4¼	29.4	Pb	Zen	Vac	Aut	Br-L 35	U	4	Col 55001	Sp	31.3	4W	Tr	155¾	4400	32x6	32x6
Brockway S	2	2450	Wis S U	4	4 x5	25.6	Pb	Zen	Vac	L-N	Br-L 35	U	4	Wis 4610	D R	38.79	R	Tr	150¼	5100	S 34x4	S 34x8
Brockway S Y	2	2950	Wis Y	6	3⅜x5	27.3	Pb	Zen	Vac	L-N	Br-L 35	U	4	Wis 4610	D R	35.3	4W	Tr	151¾	4950	32x6	34x7
Brockway K*	3	3300	Con K	4	4¼x5¼	27.2	Pw	Zen	Vac	Eis	Br-L 35	C	4	Tim 65600 D	Wo	41.5	R	R	154⅛	5855	S 36x5	S 36x10
Brockway K R	3	3625	Con L	4	4½x5½	32.4	Pw	Zen	Vac	Eis	Br-L 55	C	4	Tim 65700 S	Wo	36.38	R	D	160⅝	6290	S 36x5	S 36x10
Brockway K W	3	3950	Wis H	6	4 x5	38.2	Pb	Zen	Vac	L-N	Br-L 51	U	4	Wis 68300	D R	33.7	R	D	170	6920	34x7	D 34x7
Brockway R*	4	4200	Con L	4	4½x5½	32.4	Pw	Zen	Vac	Eis	Br-L 55	C	4	Tim 66600	Wo	46.8	R	R	164	7890	S 36x5	S 36x12
Brockway T	5-7	5200	Con B 7	4	5 x6	40.0	Pw	Zen	Vac	Eis	Br-L 60	C	4	Tim 68700	Wo	53.5	R	D	175	10065	S 36x6	S 40x14
Chevrolet	½	400	Own	6	3⅛x3¾	26.3	CS	Car	P	Rem	Own	U	3	Own	Sp	12.68	4	R	107	1815	4.50x20	4.50x20
Chevrolet	1½	545	Own	6	3⅛x3¾	26.3	CS	Car	P	Rem	Own	U	4	Own	Sp	30.05	4	R	131	2375	30x5	30x5
Commerce 20 Y	1	1600	Bud H S 6	6	3⅜x4½	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Col	Sp	25.5	4	—	142	3900	B 30x5	B 30x5
Commerce S 11 Y	1½	1900	Bud H S 6	6	3⅜x4½	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.2	4	—	162	4300	B 30x5	D B 30x5
Commerce 30 Z	1½	2900	Bud D S 6	6	3⅝x5	31.2	Pw	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	—	168	4700	B 34x5	D B 34x5
Commerce 40 Z	2	3240	Bud D S 6	6	3⅝x5	31.2	Pw	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	—	168	4900	B 36x6	D B 36x6
Commerce 50 Z	2½	4415	Bud B U S	6	4 x5⅛	38.4	Pw	Zen	Vac	Aut	Br-L	U	5	Tim	Wo	63.0	4	—	175	7000	S 36x5	S 36x10
Commerce 60 Z	3	4480	Bud B U S	6	4 x5⅛	38.4	Pw	Zen	Vac	Aut	Br-L	U	5	Tim	Wo	63.0	4	—	175	7100	S 36x5	S 36x12
Commerce 70 Z	3½	5250	Bud B A 6	6	4⅛x5⅛	40.8	Pw	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	R	—	175	8200	S 36x6	S 36x12
Commerce 80 Z	4	5330	Bud B A 6	6	4⅛x5⅛	40.8	Pw	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	R	—	175	8400	S 36x6	S 36x14
Day Elder M F	1¼	1345	Con 16-C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	Rem	Ful DU-10	U	3	Tim 52000-H	Sp	25.01	R	R	131	3100	30x5	30x5
Day Elder G F	1½	2050	Con 16-C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	Rem	Ful DU-10	U	3	Tim 5622-H	Sp	29.30	R	R	156	3900	30x5	32x6
Day Elder H F	2	2500	Con 16-C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	Rem	Ful KU-10	U	4	Tim 63702-H	Wo	49.79	R	R	156	4400	S 34x4	S 34x7
Day Elder H B F	2	2500	Con 16-C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	Rem	Ful KU-10	U	4	Tim 5622-H	Sp	44.39	R	R	156	4400	32x6	34x7
Day Elder J F	3	3725	Buda DW6	6	3¾x5	33.7	Pb	Zen	Vac	Rem	Ful GU-12	U	4	Tim 65000-H	Wo	37.20	R	R	156	6500	36x6	36x6 D
Day Elder K-6	4	4475	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Rem	Ful R	C	4	Tim 66702-D	Wo	49.60	R	R	170	8500	S 36x5	S 36x12
Day Elder L	5-6	5100	Bud B B U	4	5 x6½	40.0	Pb	Zen	Vac	Eis	Ful H	C	4	Tim 67700-D	Wo	64.60	R	R	170	10000	S 36x6	S 40x7 D
Day Elder 30 A	30 Pas	5400	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	L-N	Br-L 55	U	4	Tim 65711-D	Wo	36.11	R	R	220	7300	36x6	36x6 D
Diamond T 151	1	1095	Con 18 E	6	3⅜x4	27.3	Pb	Zen	Gra	Aut	Cov	U	3	Col	Sp	—	4	D	132	3200	30x5	32x6 D
Diamond T 290	1½	1475	Her W X A	6	3⅜x4½	27.3	Pb	Zen	Gra	Aut	Cov	U	4	Col	Sp	—	4	D	156¼	4160	30x5	30x5 D
Diamond T 302	2	1650	Her W X B	6	3⅜x4½	33.8	Pb	Zen	Gra	Aut	Cov	U	4	Tim	Sp	—	4	D	157¾	4600	32x6	32x6 D
Diamond T 550	2½	2195	Her W X C	6	4 x4½	38.4	Pb	Zen	Gra	Aut	Cov	U	4	Tim	Sp	—	4	D	165	5400	32x6	32x6 D
Dodge Bros.	½	665	Own	6	3⅜x3⅞	27.3	Pb	Stw	Vac	N E	Own	U	3	Own	Sp	15.2	4	D	110	1965	29x5.00 B	29x5.00 B
Dodge Bros.	¾	775	Own	6	3⅜x3⅞	27.3	Pb	Stw	Vac	N E	Own	U	3	Own	Sp	17.4	4	D	120	2510	31x5.25 B	31x5.25 B
Dodge Bros.	1	995	Own	6	3⅜x3⅞	27.3	Pb	Stw	Vac	N E	W-G	U	4	Own	Sp	23.8	4	D	130	2920	30x5	30x5
Dodge Bros.	1	1065	Own	6	3⅜x3⅞	27.3	Pb	Stw	Vac	N E	W-G	U	4	Own	Sp	23.8	4	D	140	2955	30x5	30x5
Dodge Bros.	1½	1345	Own	6	3⅜x3⅞	27.3	Pb	Stw	Vac	N E	Own	U	4	Own	Sp	36.8	4	D	150	3695	32x6	32x6
Dodge Bros.	1½	1415	Own	6	3⅜x3⅞	27.3	Pb	Stw	Vac	N E	Own	U	4	Own	Sp	36.8	4	D	165	3810	32x6	32x6
Dodge Bros.	2	1445	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	N E	Own	U	4	Own	Sp	41.4	4	D	114	3725	32x6	34x7
Dodge Bros.	16 Pas	1890	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	N E	Own	U	4	Own	Sp	36.8	4	D	165	4045	32x6	34x7
Dodge Bros.	21 Pas	1820	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	N E	Own	U	4	Own	Sp	41.4	4	D	165	4205	32x6	34x7
Dodge Bros.	2	1545	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	N E	Own	U	4	Own	Sp	41.4	4	D	150	3930	32x6	34x7
Dodge Bros.	2	1615	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	N E	Own	U	4	Own	Sp	41.4	4	D	165	4070	32x6	34x7
Dodge Bros	3	1745	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	N E	Own	U	4	Own	Sp	46.3	4	D	135	4225	32x6	32x6 D
Dodge Bros.	3	1775	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	N E	Own	U	4	Own	Sp	46.3	4	D	165	4520	32x6	32x6 D
Dodge Bros.	3	1845	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	N E	Own	U	4	Own	Sp	46.3	4	D	185	4715	32x6	32x6 D
Durant Com. Chassis	½	495	Con	4	3¾x4¼	18.2	Pb	Til	Vac	Aut	Own	C	3	Own	Sp	16.16	4	4	107	1670	28x4.75	28x4.75
Fargo Packet	½	545	Own	4	3⅝x4⅛	21.0	Pb	Car	Vac	Rem	Own	U	3	Own	Sp	14.29	4	Tr	...	1835	4.75x20	4.75x20
Fargo Clipper	¾	725	Own	6	3⅛x4¼	23.4	Pb	Str	Vac	Rem	Own	U	3	Own	Sp	14.29	4	Tr	...	2325	5.50x18	5.50x18
Ford A A	1½	540	Own	4	3⅞x4¼	24.0	P&S	Zen	Gra	Own	Own	U	3	Own	Wo	*15.95	4	4	131½	2250	30x5	32x6
F. W. D.—H	2	3300	Wis S U	4	4 x5	25.6	Pb	Zen	Vac	Eis	Cotta	C	4	Own	St	38.1	4	R	121	5300	34x7	34x7
F. W. D.—B	3	4200	Own	4	4¾x5½	36.1	Pb	Str	Gra	Eis	Own	C	3	Own	St	35.6	4	R	124	6460	36x6 S	36x6 S
F. W. D.—B-5	3	4525	Own	4	4¾x5½	36.1	Pb	Str	Gra	Eis	Own	C	5	Own	St	88.6	4	R	132	6800	36x6 S	36x6 S
F. W. D.—U 6	3½	4575	Wak	6	4 x4¾	38.6	Pb	Zen	Vac	A B	Own	C	5	Own	St	88.6	4	R	148	7200	36x6 S	36x6 S
F. W. D.—M	3½-5	5000	Wak	6	4¼x4¾	43.3	Pb	Zen	Gra	Eis	Own	C	5	Own	St	88.6	4	R	132	7600	36x8 S	36x10 S
F. W. D.—M F	3½-5	5000	Wak	6	4¼x4¾	43.3	Pb	Zen	Vac	Eis	Own	C	5	Own	St	88.6	4	R	148	7775	36x8 S	36x10 S
F. W. D.—H T	2	3900	Wis S U	4	4 x5	25.6	Pb	Zen	Vac	Eis	Br-L	C	7	Own	St	84.7	4	R	120	6000	36x8	36x8
F. W. D.—B T	3	4742	Own	4	4¾x5½	36.1	Pb	Str	Vac	Eis	Own	C	5	Own	St	101.0	4	R	133¾	7700	40x7 S	40x5 S D
F. W. D.—U 4	3	4575	Own	4	4¾x5½	36.1	Pb	Str	Vac	Eis	Own	C	5	Own	St	88.6	4	R	148	7000	36x6 S	36x6 S
F. W. D.—X 6	6	6500	Wak	6	4¼x4¾	43.3	Pb	Zen	Vac	A B	Own	C	5	Own	St	88.6	4	4	170	9500	36x8	36x8
Garford 20 Y	1	1600	Bud H S 6	6	3⅜x4½	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Col	Sp	25.5	4	—	142	3900	B 30x5	B 30x5
Garford S 11 Y	1½	1900	Bud H S 6	6	3⅜x4½	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.2	4	—	162	4300	B 30x5	D B 30x5
Garford 30 Z	1½	2990	Bud D S 6	6	3⅝x5	31.2	Pw	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	—	168	4700	B 34x5	D B 34x5
Garford 40 Z	2	3240	Bud D S 6	6	3⅝x5	31.2	Pw	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	—	168	4900	B 36x6	D B 36x6
Garford 50 Z	2½	4419	Bud B U S	6	4 x5⅛	38.4	Pw	Zen	Vac	Aut	Br-L	U	5	Tim	Wo	63.0	4	—	175	7000	S 36x5	S 36x10
Garford 60 Z	3	4480	Bud B U S	6	4 x5⅛	38.4	Pw	Zen	Vac	Aut	Br-L	U	5	Tim	Wo	63.0	4	—	175	7100	S 36x5	S 36x12
Garford 70 Z	3½	5250	Bud B A 6	6	4⅛x5⅛	40.8	Pw	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	R	—	175	8200	S 36x6	S 36x12
Garford 80 Z	4	5330	Bud B A 6	6	4⅛x5⅛	40.8	Pw	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	R	—	175	8400	S 36x6	S 36x14
Gramm Imp. Jr.	*9000	3785	——	6	4⅜x4¾	45.9	Pb	Zen	Vac	L-N	—	U	4	—	D R	—	4	R	210	6800	34x7	34x7 D
Gramm Imp. Sr.	*13000	4985	——	6	4¾x5¾	54.1	Pb	Zen	Vac	L-N	—	U	4	—	D R	—	4	R	236	9400	36x8	36x8 D
Gramm 263-N	1-1¼	1485	Lyc S	6	3¼x4½	25.3	Pb	Zen	Gra	Aut	Cov	U	3	Eat 1002	Sp	21.3	4	R	133	3485	30x5	32x6
Gramm 363-N	1½	1485	Lyc S	6	3¼x4½	25.3	Pb	Zen	Gra	Aut	Cov	U	3	Eat 1002	Sp	21.3	4	R	133	3485	30x5	32x6
Gramm 463-N	2	1885	Lyc S	6	3¼x4½	25.3	Pb	Zen	Gra	Aut	Cov	U	3	Eat 1504	Sp	25.3	4	R	133	3800	32x6	34x7
Gramm 564-N	2½	2940	Lyc T S	6	3⅞x5	36.2	Pb	Zen	Gra	Aut	Ful G U	U	3	Wis 6617	D R	25.4	4	R	133	4800	32x6	32x6 D
Gramm 35	3	4160	Her L	4	4½x5¾	32.4	Pb	Zen	Vac	Aut	Ful H	C	8	Wis 8800	D R	115.5	4	R	153	7100	36x5 S	36x10 S
Gramm 35	3	4160	Lyc T S	6	3⅞x5	36.2	Pw	Zen	Vac	Aut	Ful H	C	8	Wis 8800	D R	115.5	4	R	153	7100	36x5 S	36x10 S
Gramm 38—Low Bed	3	4160	Lyc T S	6	3⅞x5	36.2	Pw	Zen	Vac	Aut	Ful GU	C	8	Wis 67310	D R	33.1	4	R	153	7100	36x5 S	36x10 S
Gramm 45	4	4735	Her L	4	4½x5¾	32.4	Pb	Zen	Vac	Aut	Ful H	C	8	Wis 1450	D R	128.0	4	R	150	7600	36x5 S	36x12 S
Gramm 45	4	4735	Lyc T S	6	3⅞x5	36.2	Pw	Zen	Vac	Aut	Ful H	C	8	Wis 1450	D R	128.0	4	R	153	7600	36x5 S	36x12 S
Gramm 48—Low Bed	4	4735	Lyc T S	6	3⅞x5	36.2	Pw	Zen	Vac	Aut	Ful GU	U	4	Wis 1250	D R	34.2	4	R	133	7600	36x5 S	36x12 S
Gramm 60	5	5370	Her G	4	4¾x5¾	36.1	Pb	Zen	Vac	Aut	Ful H	C	8	Wis 1700	D R	133.4	4	R	153	8700	36x6 S	36x14 S
Gramm 60	5	5370	Lyc T S	6	3⅞x5	36.2	Pw	Zen	Vac	Aut	Ful GU	U	8	Wis 1700	D R	133.4	4	R	153	8700	36x6 S	36x14 S
GMC T 11	*3800	625	Pontiac	6	3⅛x3¾	26.3	Pb	Mar	P	Rem	Own	U	3	Own	Sp	14.7	4	D	109¾	1980	19.5.00 B	19x5.50 B
GMC T 19 (2003)	*6000	895	Pontiac	6	3⅛x3¾	26.3	Pb	Mar	P	Rem	Own	U	4	Tim 5261 Bx	Sp	34.1	4	D	127¾	2925	20x5.50 B	32x6
*GMC T 30A (3003)	*8000	1395	Buick Std	6	3⅛x4⅜	26.3	Pb	Mar	P	Rem	Own	U	4	Eat 1606	Sp	28.6	4	D	136	4075	20x6.00 B	34x7
*GMC T 42A (4003)	*10000	1685	Buick Std	6	3⅛x4⅜	26.3	Pb	Mar	P	Rem	Own	U	4	Own	Sp	33.4	4	D	136	4510	20x7.00 B	36x8
†*GMC T 60A (5003)	*14500	2800	Buick Mst	6	3⅝x5	31.5	Pb	Mar	P	Rem	Own	U	4	Tim 65706 N	Wo	44.8	4	D	140	6090	32x6	32x6 D
*GMC K 102A (6001)	*28000	4250	Own 89	4	4½x6½	32.4	Pw	Mar	Vac	Eis	Own	C	7	Tim 67600	Wo	86.3	R	R	160	9520	36x6 S	40x14 S
*Hahn 24	1	1345	Her O	4	4 x5	25.6	Pb	Zen	Vac	Aut	Br-L 31	U	3	Eat 1002	Sp	—	R	R	138	3100	30x5	30x5
*Hahn 34	1½	2080	Her O	4	4 x5	25.6	Pb	Zen	Vac	Aut	Br-L 31	U	3	Eat 1504	Sp	—	R	R	150	3750	32x6	32x6
*Hahn 44	2	2250	Her O	4	4 x5	25.6	Pb	Zen	Vac	Aut	Br-L 31	U	3	Eat 1504	Sp	—	R	R	150	4100	32x6	34x7
Hahn 465	2	2740	Con 6 B	6	3¾x5	33.5	Pb	Zen	Vac	Aut	Br-L 35	U	4	Eat 1504	Sp	—	R	R	160½	4300	32x6	34x7
Hahn 54	2½	3300	Her L	4	4½x5¾	32.4	Pb	Zen	Vac	R B	Br-L 51	U	4	Tim 65000	Wo	—	R	R	144	5600	36x4 S	36x8 S
†Hahn 56	2½	3440	Con 6 B	6	3¾x5	33.8	Pb	Zen	Vac	Rem	Br-L 51	U	4	Eat 2252	Sp	—	R	D	160	5300	32x6	32x6 D

*See special notations. †See special notations.

1929 COMMERCIAL CARS BUILT IN THE UNITED STATES

Make and Model	Capacity—tons	Chassis price	Engine	No. of Cyl.	Bore and Stroke	Tax H. P.	Oil System	Carburetor	Fuel Feed	Ignit. System	Gearset	Location	No. Spds. for.	Rear Axle	Final Drive	Reduction in Low	Brakes, foot	Brakes, hand	Standard Wheel Base	Chassis Weight	Standard Tire Sizes Front	Rear
Hahn L	3	3600	Her L	4	4½x5¾	32.4	Pb	Zen	Vac	R B	Br-L 51	U	4	Tim 65704	Sp	—	R	R	149	5900	36x5 S	36x5 S D
Hahn 76	3½	4790	Her Y X C	6	4⅜x4¾	45.9	Pb	Zen	Vac	L-N	Br-L 51	U	4	Tim 65704	Wo	—	R	R	196	6500	34x7	34x7 D
Hahn M	4	4250	Her G	4	4¾x5¾	36.5	Pb	Zen	Vac	R B	Br-L 60	C	4	Tim 66700	Wo	—	R	R	160	7600	36x5 S	36x12 S
Hahn R	5	5100	Her G	4	4¾x5¾	36.5	Pb	Zen	Vac	R B	Br-L 60	C	4	Tim 66700	Wo	—	R	R	162	8800	36x6 S	40x6 S D
Hahn N	6	5200	Her G	4	4¾x5¾	36.4	Pb	Zen	Vac	R B	Br-L 60	C	4	Tim 66700	Wo	—	R	R	162	9200	36x6 S	40x6 S D
Hahn K B L	25 Pas	4300	Her W X C	6	4 x4½	38.4	Pb	Zen	Vac	L-N	Br-L 51	U	4	Wis 67310	D R	—	R	R	204	5600	32x6	32x6 D
Hahn K B H	29 Pas	5000	Her Y X C	6	4⅜x4¾	45.9	Pb	Zen	Vac	L-N	Br-L 51	U	4	Wis 67310	D R	—	R	R	220	6400	34x7	34x7 D
Hahn L B	33 Pas	6000	Con 15 H	6	4½x5¾	48.6	Pb	Zen	Vac	L-N	Br-L 60	U	4	Wis 1251 K	D R	—	R	R	247	9000	38x7	38x7 D
Indiana 200	1	1195	Wis F	6	3¼x4½	25.3	Pb	Zen	Vac	Aut	Br-L 20	U	3	Col 36000	Sp	20.71	4	Tr	137	3400	30x5	32x6
Indiana 300	1½	1475	Wis F	6	3¼x5¼	25.3	Pb	Zen	Vac	Aut	Br-L 20	U	3	Col 54030	Sp	21.26	4	Tr	149	3650	30x5	32x6
Indiana 111 X	2	1850	Her Ox	4	4 x5	25.6	Pb	Str	Vac	Eis	Br-L 35	U	4	Cla B 504	Sp	36.60	R	Tr	120	3830	32x6	32x6 D
Indiana 400	2	2495	Wis Y	6	3⅜x5	27.3	Pb	Str	Vac	Aut	Br-L 35	U	4	Cla B 506	Sp	30.33	4	Tr	157	4800	32x6	34x7
Indiana 115 A	2½	2740	Her Ox	4	4 x5	25.6	Pb	Str	Vac	Eis	Br-L 35	U	4	Cla B 720	Sp	42.80	R	Tr	132	5000	32x6	34x7 D
Indiana 615 A	2½	3070	Wisc Y	6	3⅜x5	27.3	Pb	Str	Vac	Eis	Br-L 35	U	4	Cla B 720	Sp	30.33	R	Tr	136	5190	32x6	34x7 D
Indiana 126	3	3495	Her L	4	4½x5¾	32.4	Pb	Str	Vac	Eis	Br-L 557	C	7	Tim 65704	Wo	80.7	R	Js	162½	7400	36x5	36x10 S
Indiana 127	3	3190	Her K	4	4¼x5¾	28.9	Pb	Str	Vac	Eis	Br-L 51	U	5	Cla B 720	Sp	41.72	R	R	141	6490	32x6	34x7 D
Indiana 626	3	4185	Wis H	6	4 x5	38.4	Pb	Str	Vac	Eis	Br-L 55	C	7	Tim 65074	Wo	80.7	R	Js	168½	7625	36x6 S	36x10 S
Indiana 627	3	3725	Wis H	6	4 x5	38.4	Pb	Str	Vac	Aut	Br-L 55	U	4	Cla B 720	Sp	42.80	R	R	162½	6500	36x5 S	36x10 S
Indiana 628	3	4355	Wis H	6	4 x5	38.4	Pb	Str	Vac	Aut	Br-L 55	U	4	Cla B 720	Sp	37.45	R	R	216¾	6585	34x7	34x7 D
Indiana 127 A	3	3375	Her K	4	4¼x5¾	28.9	Pb	Str	Vac	Eis	Br-L 51	U	5	Cla B 720	Sp	41.72	R	R	141	6800	32x6	34x7 D
Indiana 627 A	3	3690	Wisc H	6	4 x5	38.4	Pb	Str	Vac	Eis	Br-L 51	U	5	Cla B 70	Sp	41.72	R	R	147	6800	32x6	34x7 D
Indiana 138	4	4380	Her L	4	4½x5¾	32.4	Pb	Str	Vac	Eis	Br-L 60	C	7	Tim 66700 D	Wo	83.1	R	R	162½	7850	36x5	36x12 S
Indiana 638	4	4955	Wisc H	6	4 x5	38.4	Pb	Str	Vac	Eis	Br-L 60	C	7	Tim 66700 D	Wo	83.1	R	R	168½	8100	36x5	36x12 S
Indiana 41	5	5460	Her G	4	4¾x5¾	36.1	Pb	Str	Vac	Eis	Br-L 60	C	7	Tim 66700 D	Wo	95.0	R	R	172	9600	36x6	40x12 S
Int. Harvester Sp. Del.	¾	720	Wak X A	4	3½x4½	19.6	Pb	Zen	Vac	Rem	Mec	U	3	Eat 502 R	Sp	15.1	4	4	124	2200	30x5.25	30x5.25
Int. Harv. 6 Spd. Spec.	1	820	Wak X A	4	3½x4½	19.6	Pb	Zen	Vac	Rem	Mec	U	3	Eat 1124	Sp	*52.6	4	4	124	2430	30x5	30x5
Int. Harvester S-24	1¼	1160	Lyc C T	4	3¾x5	22.5	Pw	Zen	Vac	Rem	Own	U	3	Eat 1002	Sp	21.3	4	4	130	3200	32x4½	30x5
Int. Harvester S-16	1¼	1310	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	Rem	Own	U	3	Eat 1002	Sp	21.3	4	4	130	3250	32x4½	30x5
Int. Harvester SF-34	1½	1450	Lyc C T	4	3¾x5	22.5	Pw	Zen	Vac	Rem	Own	U	3	Eat 1502	Sp	22.6	4	4	140	3520	30x5	32x6
Int. Harvester SF-36	1½	1600	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	Rem	Own	U	3	Eat 1502	Sp	22.6	4	4	140	3570	30x5	32x6
Int. Harvester SD-44	2	1590	Lyc C T	4	3¾x5	22.5	Pw	Zen	Vac	A B	Own	U	4	Eat 2002	Sp	40.6	4	4	117	3700	30x5	32x6
Int. Harvester SD-46	2	1740	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	A B	Own	U	4	Eat 2002	Sp	40.6	4	4	117	3750	30x5	32x6
Int. Harvester SF-46	2	1950	Lyc 4 S L	6	3¼x4½	25 3	Pb	Zen	Vac	Rem	Own	U	4	Eat 2002	Sp	40.6	4	4	140	4000	32x6	34x7
Int. Harvester 54-C	2½	3200	Own	4	4¼x5	28.9	C S	Zen	Gra	R B	Own	U	4	Own A M 428	Ch	51.8	R	D	140	6400	36x5	36x10
Int. Harvester 54	2½	3550	Own	4	4¼x5	28.9	C S	Zen	Gra	R B	Own	U	4	Eat 54 65000	D R	53.7	R	D	140	6345	36x5	36x8
Int. Harvester 74-C	3½	4550	Own	4	4¼x5	28.9	C S	Zen	Gra	R B	Own	U	4	Own A M 427	Ch	*86.0	R	D	154	8715	36x6	40x12
Int. Harvester 74	3½	4550	Own	4	4¼x5	28.9	C S	Zen	Gra	R B	Own	U	4	Eat 74 100000	D R	61.6	R	D	160	8175	36x6	40x12
Int. Harvester 104-C	5	4800	Own	4	4¼x5	28.9	C S	Zen	Gra	R B	Own	U	4	Own A M 427	Ch	86.0	R	D	154	8890	36x6	40x14
Int. Harvester HS-54	2½	3850	H-S 151	4	4¼x5½	28.9	Pb	Zen	Vac	R B	Own	U	5	Eat 54 65000	D R	60.5	4	4	*148	8000	36x5	36x8
Int. Harvester HS-54-C	2½	3850	do 151	4	4¼x5½	28.9	Pb	Zen	Vac	R B	Own	U	5	Own A M 428	Ch	63.8	4	4	*148	8665	36x5	36x10
Int. Harvester HS-74	3½	4850	do 152	4	4¾x5½	36.1	Pb	Zen	Vac	R B	Own	U	5	Eat 74 100000	D R	70.5	4	4	*160	10700	36x6	40x12
Int. Harvester HS-74-C	3½	4850	do 152	4	4¾x5½	36.1	Pb	Zen	Vac	R B	Own	U	5	Own A M 427	Ch	79.1	4	4	*160	11000	36x6	40x12
Int. Harv'st'r HS-104-C	5	5500	do 152	4	4¾x5½	36.1	Pb	Zen	Vac	R B	Own	U	5	Own A M 427	Ch	90.5	4	4	*160	11095	36x6	40x14
*Larrabee 20	1	1595	Con 16 C	6	3⅜x4⅜	27.3	Pb	Zen	Gra	Rem	Br-L	U	3	Col	Sp	4.15	4	D	142	4170	30x5	30x5
*Larrabee 30	1½	1875	Con 16 C	6	3⅜x4⅜	27.3	Pb	Zen	Gra	Rem	Br-L	U	3	Col	Sp	4.15	4	D	161	4550	32x6	32x6
*Larrabee 40	2	2965	Con 16 R	6	4 x4⅛	38.4	Pb	Zen	Gra	Rem	Br-L	U	4	Wisc	D R	5.35	4	D	176	5950	32x6	32x6 D
*Larrabee 50	2½	3285	Con 16 R	6	4 x4⅛	38.4	Pb	Zen	Gra	Rem	Br-L	U	4	Wisc	D R	5.35	4	D	183	6030	32x6	32x6 D
*Larrabee 60	3	3980	Con 18 R	6	4 x4½	38.4	Pb	Zen	Gra	Rem	Br-L	U	4	Tim	Wo	5.35	4	D	195	7140	34x7	34x7 D
*Larrabee 70	3½	4600	Con 20 R	6	4⅛x4¾	40.8	Pb	Zen	Gra	Rem	Br-L	C	7	Tim	Wo	9.5	4	D	205	7740	34x7	34x7 D
Mack A B	1½	3000	Own	4	4 x5	25.6	Sp	Str	Gra	Spf	Own	U	4	Own	Ch	34.44	D	R	146½	5350	36x4	36x3½ D
Mack A B	1½	3450	Own	4	4 x5	25.6	Sp	Str	Gra	Spf	Own	U	4	Own	D R	36.8	R	D	or	5650	36x4	36x6
Mack A B	2	3300	Own	4	4¼x5	28.9	Sp	Str	Gra	Spf	Own	U	4	Own	Ch	34.44	D	R	164½	5450	36x4	36x3½ D
Mack A B	2	3750	Own	4	4¼x5	28.9	Sp	Str	Gra	Spf	Own	U	4	Own	D R	36.38	R	D	on all	5800	36x4	36x6
Mack A B	2½	3400	Own	4	4¼x5	28.9	Sp	Str	Gra	Spf	Own	U	4	Own	Ch	43.02	D	R	these	5500	36x4	36x4 D
Mack A B	3	3850	Own	4	4¼x5	28.9	Sp	Str	Gra	Spf	Own	J	4	Own	D R	44.9	R	D	models	5950	36x4	36x8
Mack A C	3½	4950	Own	4	5 x6	40.0	Sp	Str	Gra	Spf	Own	J	4	Own	Ch	48.37	Js	R	156	9100	36x5	40x5, 40x10 S
Mack A C	5	5500	Own	4	5 x6	40.0	Sp	Str	Gra	Spf	Own	J	4	Own	Ch	53.31	Js	R	168 or	9550	36x6	40x6 D
Mack A C	7½	6000	Own	4	5 x6	40.0	Sp	Str	Gra	Spf	Br-L 35	U	4	Own	Ch	67.38	Js	R	180	10050	36x7	40x7 D
Mack B B	1½	3500	Own	4	4¼x5	28.9	P&S	Str	E	N E	Own	U	4	Own	S R	*23.81	4	D	165½	6450	32x6	32x6 D
*Mack A B	1½–2	3000	Own	4	4¼x5	28.9	P&S	Str	Gra	Spf	Own	U	4	Own	Ch	*34.4	R	D	146½	5400	36x4	36x6 S
Mack A B	2½–3	3400	Own	4	4¼x5	28.9	P&S	Str	Gra	Spf	Own	U	4	Own	Ch	*43.9	R	D	146½	5650	36x4	36x8 S
Mack B J	3–4	5800	Own	6	4¼x5	43.3	P&S	Str	E	N E	Own	C	4	Own	D R	*22.40	4	D	168½	8950	36x8	36x8 D
Mack A K	3½–5	4850	Own	4	5 x6	40.0	P&S	Str	Gra	Spf	Own	C	4	Own	D R	*45.3	4	D	162	8900	36x5	36x5 D
Mack A C	3½–5	4950	Own	4	5 x6	40.0	P&S	Str	Gra	Spf	Own	J	4	Own	Ch	*48.4	Js	R	156	9100	36x5	40x10 S
Mack A C	5½–7	5500	Own	4	5 x6	40.0	P&S	Str	Gra	Spf	Own	J	4	Own	Ch	*57.41	Js	R	156	9550	36x6	40x12 S
Mack A C	7½	6000	Own	4	5 x6	40.0	P&S	Str	Gra	Spf	Own	J	4	Own	Ch	*67.1	Js	R	156	10050	36x7	40x14 S
Mack A B Tractor	5–6	3400	Own	4	4¼x5	28.9	P&S	Str	Gra	Spf	Own	U	4	Own	Ch	*51.1	D	R	122½	5700	36x4	36x8 S
Mack A C Tractor	7–10	4950	Own	4	5 x6	40.0	P&S	Str	Gra	Spf	Own	J	4	Own	Ch	*58.00	Js	R	128	9150	34x5	36x5 D
Mack A C Tractor	11–14	5500	Own	4	5 x6	40.0	P&S	Str	Gra	Spf	Own	J	4	Own	Ch	*62.2	Js	R	128	9600	34x6	36x6 D
Mack A C Tractor	15 Pas	6000	Own	4	5 x6	40.0	P&S	Str	Gra	Spf	Own	J	4	Own	Ch	*73.5	Js	R	128	9950	34x7	36x7 D
Mack A B Bus C T	15 Pas	4650	Own	4	4¼x5	28.9	P&S	Str	Vac	N E	Own	U	4	Own	D R	—	R	D	196	7200	Opt.	Opt.
Mack A B Bus C T	29 Pas	4750	Own	4	4¼x5	28.9	P&S	Str	Vac	N E	Own	U	4	Own	D R	—	R	D	225¼	7300	Opt.	Opt.
**†Mack A B Bus	25 Pas	6195	Own	4	4¼x5	28.9	P&S	Str	Vac	N E	None		—	Own	D R	—	—	—	196	8545	34x7	34x7 D
**†Mack A B Bus	29 Pas	6295	Own	4	4¼x5	28.9	P&S	Str	Vac	N E	None		—	Own	D R	—	—	—	225¼	8545	34x7	34x7 D
Mack A B Parlor Car	25 Pas	4750	Own	4	4¼x5	28.9	P&S	Str	Vac	N E	Own	U	4	Own	D R	—	R	D	230½	7340	Opt.	Opt.
Mack A L Bus C T	29 Pas	6500	Own	6	4¼x5	43.3	P&S	Str	E	N E	Own	C	4	Own	D R	—	4	D	233	9000	34x7	34x7 D
Mack A L	29 Pas	6500	Own	6	4¼x5	43.3	P&S	Str	E	N E	Own	C	4	Own	D R	—	4	D	233	9000	34x7	34x7 D
**†Mack A L	29 Pas	8436	Own	6	4¼x5	43.3	P&S	Str	E	N E	None		—	Own	D R	—	—	—	233	11520	34x7	34x7 D
Moreland R R-6	1½–2	1850	Con 16-C	6	3⅜x4⅜	27.3	Pb	Zen	P	Aut	Br-L 35	U	4	Tim 54000 H	Sp	32.95	4	D	158½	4000	32x6	32x6
Moreland B-6	2–2½	2200	Con 16-C	6	3⅜x4⅜	27.3	Pb	Zen	P	Aut	Br-L 35	U	4	Tim 63721 H	Wo	34.8	4	D	158½	4500	36x5 S	36x6 S
Moreland E-6	2½–3	3700	Her W X C	6	4 x4½	38.4	Pb	Zen	P	Aut	Bf-L 51	U	4	Tim 65000 H	Wo	34.8	*4	D	182	6000	34x7	34x7 D
Moreland Ex. 6	3½–4	3750	Her W X C	6	4 x4½	38.4	Pb	Zen	P	Aut	Br-L 51	U	5	Tim 65704 N	Wo	46.0	*4	D	182	6500	36x4 S	36x8 S
Moreland E D-6	5	4700	Her W X C	6	4 x4½	38.4	Pb	Zen	P	Aut	Br-L 51	U	5	Own	Wo	52.2	*4	D	196	8500	36x8	36x8
Moreland H-6	5	4990	Her Y X C	6	4⅜x4¾	45.9	Pb	Zen	P	Aut	Br-L 55	C	7	Tim 66702 W	Wo	82.3	*R	D	196	8000	36x5 S	36x10 S
Moreland H D S-6	6	5800	Her Y X C	6	4⅜x4¾	45.9	Pb	Zen	P	Aut	Br-L 60	C	7	Own	Wo	81.6	*4	D	221	10500	36x6 S	36x8
Moreland S D-6	10	6950	Her YXC 2	6	4½x4¾	48.6	Pb	Zen	P	Aut	Br-L 60	C	7	Own	Wo	89.0	*4	D	220	11500	36x7 S	36x10 S
Moreland T T-6	10	8600	Con 15-H	6	4½x5¾	48.6	Pw	Str	P	Aut	Br-L 70	C	7	Own	Wo	98.5	*4	D	221	12500	36x7 S	36x10
*Fleet Arrow F A-1	1½–2	2450	Own F A	6	3½x5	29.5	Pb	Str	A P	Rem	Own	U	3	Own	Sp	33.3	4	Tr	140	3950	32x6.00	34x7
*Pierce-Arrow F A-1	1½–2	2450	Own	6	3½x5	29.4	Pw	Str	P F	Del	Own	U	3	Tim	St	21.4	4	Tr	140	4100	32x6	32x6 D
*Pierce-Arrow X A-1	2	3500	Own	4	4 x5½	25.6	Pw	Str	Pre	Del	Own	C	4	Own	Wo	44.2	D	R	150	6750	36x4	36x5 D S
*Pierce-Arrow X B-1	3	3750	Own	4	4 x5½	25.6	Pw	Str	Pre	Del	Own	C	4	Own	Wo	48.1	D	R	150	6830	36x5	36x5 D S
*Pierce-Arrow H B-1	5	4500	Own	4	4 x5½	25.6	Pw	Str	Pre	Del	Own	C	7	Own	Wo	95.0	D	R	156	8400	36x5	36x6 D S
*†Pierce-Arrow W C-1	4	5100	Own	4	4½x6¾	32.4	Pw	Str	Pre	Del	Own	C	4	Own	Wo	41.5	D	R	162	8780	36x5	36x6 D S
*†Pierce-Arrow R D-1	5	5400	Own	4	4½x6¾	32.4	Pw	Str	Pre	Del	Own	C	4	Own	Wo	40.5	D	R	162	9440	36x6	36x7 D S
*†Pierce-Arrow R F-1	7½	5600	Own	4	4½x6¾	32.4	Pw	Str	Pre	Del	Own	C	4	Own	Wo	51.9	D	R	168	10320	36x6	40x8 D S
†Pierce-Arrow R F-T	7½	5600	Own	4	4½x6¾	32.4	Pw	Str	Pre	Del	Own	C	4	Own	Wo	51.9	D	R	132	940	36x6	36x8 D S
Relay 20 B	1	1700	Bud H S 6	6	3⅜x4½	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Own	Relay	25.7	4	—	142	4100	B 30x5	B 30x5
Relay S 11 B	1½	1900	Bud H S 6	6	3⅜x4½	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Own	Relay	30.0	4	—	162	4500	B 30x5	D B 30x5
Relay 30 A	1½	2990	Bud D S 6	6	3⅝x5	31.2	Pw	Zen	Vac	Aut	Br-L	U	4	Own	Relay	34.5	4	—	168	5300	B 34x5	D B 34x5
Relay 40 A	2	3240	Bud D S 6	6	3⅝x5	31.2	Pw	Zen	Vac	Aut	Br-L	U	4	Own	Relay	34.5	4	—	168	5500	B 36x6	D B 36x6
Relay 50 C	2½	4415	Bud B U S	6	4 x5⅛	38.4	Pw	Zen	Vac	Aut	Br-L	U	5	Own	Relay	58.5	4	—	175	7300	B 36x6	S 36x10
Relay 60 C	3	4480	Bud B U S	6	4 x5⅛	38.4	Pw	Zen	Vac	Aut	Br-L	U	5	Own	Relay	58.5	4	—	175	7450	B 36x6	S 36x12
Relay 70 C	3½	5250	Bud B A 6	6	4⅛x5⅛	40.8	Pw	Zen	Vac	Aut	Cov	C	8	Own	Relay	84.2	R	—	175	8600	B 36x6	S 40x12
Relay 80 C	4	5330	Bud B A 6	6	4⅛x5⅛	40.8	Pw	Zen	Vac	Aut	Cov	C	8	Own	Relay	84.2	R	—	175	8800	B 36x6	S 40x14
Reo B A	½	895	Con 16 E	6	3⅜x4	27.3	Pb	Sch	Vac	N E	W-G	U	3	Sal	Sp	14.63	4	Tr	115	2290	28x5.25	28x5.25
Reo D A	1	995	Con 16 E	6	3⅜x4	27.3	Pb	Sch	Vac	N E	W-G	U	3	Own	Sp	18.4	4	Tr	123	2755	30x5	30x5
Reo D C	1	1075	Con 16 E	6	3⅜x4	27.3	Pb	Sch	Vac	N E	W-G	U	3	Own	Sp	18.4	4	Tr	138	2850	30x5	30x5
Reo F A	1½	1295	Own	6	3⅜x5	27.3	Pb	Sch	Vac	Rem	Own	U	4	Own	Sp	22.96	4	Tr	137	3525	32x6	32x6
Reo F B	Bus	1455	Own	6	3⅜x5	27.3	Pb	Sch	Vec	Rem	Own	U	4	Own	Sp	22.96	4	Tr	156	3900	32x6.75	36x8.25
Reo F E	1½	1395	Own	6	3⅜x5	27.3	Pb	Sch	Vac	Rem	Own	U	4	Own	Sp	22.96	4	Tr	152	3700	32x6	32x6
Reo F F	1½	1395	Own	6	3⅜x5	27.3	Pb	Sch	Vac	Rem	Own	U	4	Own	Sp	22.96	4	Tr	156	3750	32x6	32x6
Reo F C	2	1595	Own	6	3⅜x5	27.3	Pb	Sch	Vac	Rem	Own	U	4	Own	Sp	37.62	4	Tr	152	4025	32x6	32x6 D
Reo F D	2	1695	Own	6	3⅜x5	27.3	Pb	Sch	Vac	Rem	Own	U	4	Own	Sp	37.62	4	Tr	168	4075	32x6	32x6 D
Reo G A	3	2035	Own	6	3⅜x5	27.3	Pb	Sch	Vac	Rem	Own	U	4	Own	Sp	41.05	4	Tr	163	4625	32x6	32x6 D

*See special notations. †See special notations.

(KEY TO ABBREVIATIONS AND TABLE CONTINUED ON NEXT PAGE)

Major Specifications and Mechanical Details of 1929 Commercial Car Built in the United States

Make and Model	Capacity—tons	Chassis price	Engine	No. of Cyl.	Bore and Stroke	Tax H. P.	Oil System	Carburetor	Fuel Feed	Ignit. System	Gearset	Location	No. Spds. for.	Rear Axle	Final Drive	Reduction in Low	Brakes, foot	Brakes, hand	Standard Wheel Base	Chassis Weight	Standard Tire Sizes Front	Rear
Reo G B	Bus	2200	Own	6	3 3/8x5	27.3	Pb	Sch	Vac	Rem	Own	U	4	Own	Sp	41.05	4	Tr	179	4850	34x7.50	34x7.50
Reo G C	3	2140	Own	6	3 3/8x5	27.3	Pb	Sch	Vac	Rem	Own	U	4	Own	Sp	41.05	4	Tr	179	4850	32x6	32x6 D
Reo G D	3	1985	Own	6	3 3/8x5	27.3	Pb	Sch	Vac	Rem	Own	U	4	Own	Sp	46.2	4	Tr	134	4570	32x6	32x6 D
*Republic 75-4	1¼	1395	Lyc C T	4	3¾x5	22.5	Pb	Zen	Vac	Aut	Ful	U	3	Eat	St	21.3	R	R	124	3000	30x5	30x5
*Republic 76-4	1½	1575	Lyc C T	4	3¾x5	22.5	Pb	Zen	Vac	Aut	Ful	U	3	Eat	St	21.3	R	R	146	3350	30x5	30x5
Republic 85	2	2095	Lyc C 4	4	4 x5	25.6	Pb	Zen	Vac	Aut	Ful	U	3	Eat	St	25.5	R	R	155	4250	30x5	30x5 D
Republic 88	2	1945	Lyc C 4	4	4 x5	25.6	Pb	Zen	Vac	Aut	Ful	U	3	Eat	St	26.5	R	R	110	3350	30x5	30x5 D
Republic 50	2	2095	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	Aut	Ful	U	3	Eat	St	25.5	R	D	143	4100	30x5	30x5 D
Republic 58	2½	2495	Lyc C 4	4	4 x5	25.6	Pb	Zen	Vac	Aut	Ful	U	3	Eat	St	27.5	R	D	122	4300	32x6	32x6 D
†Republic 60-61	2½	2985	Lyc T F	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Ful	U	3	Eat	St	22.0	R	D	151	4600	32x6	32x6 D
Republic 65	3	3695	Lyc T S	6	3⅞x5	36.2	Pb	Zen	Vac	Aut	Ful	U	4	Eat	D R	36.0	4	D	179	6100	34x7	34x7 D
Republic 15W	2	2545	Wak V	4	4 x5	25.6	Pw	Zen	Vac	A B	Ful	U	3	Eat	Int	28.8	D	R	153	4200	34x4 S	34x7 S
†Republic 25W-25WRB	3	3390	Wak C U	4	4⅜x5¾	30.6	Pb	Zen	Vac	A B	Ful	U	4	Eat	Int	40.3	D	R	165	5800	36x5 S	36x10 S
Republic 30W-30WB	4½	4185	Wak C U	4	4⅜x5¾	30.6	Pb	Zen	Vac	A B	Ful	U	4	Eat	Int	49.2	D	R	156	6700	36x5 S	36x12 S
Rugby Lt. Dely Panel	½	*775	Con	4	3⅜x4¼	18.2	Pb	Til	Vac	Aut	Own	C	3	Own	Sp	14.79	4	4	107	2325f	28x4.75	28x4.75
Rugby Fast Mail Panel	¾	*975	Con	6	2⅞x4¾	19.8	Pb	Til	Vac	Aut	Own	U	3	Own	Sp	14.79	4	4	110	2600f	29x5	29x5
Rugby Express	1¼	975	Con	6	2¾x4¾	18.2	Pb	Til	Vac	Aut	Own	C	4	Own	Sp	22.4	4	4	128	2530	30x5	30x5
Rugby Mod X	1¼	680	Con	4	3⅜x4¼	18.2	Pb	Til	Vac	Aut	Own	C	3	Own	Sp	24.16	4	4	124	2175	29x5	30x5
Service 20 Y	1	1600	Bud H S 6	6	3 3/8x4½	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Col	Sp	25.5	4	—	142	3900	B 30x5	B 30x5
Service S 11 Y	1½	1990	Bud H S 6	6	3 3/8x4½	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.2	4	—	162	4300	B 30x5	D B 30x5
Service 30 Z	1½	2900	Bud D S 6	6	3⅝x5	31.2	Pw	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	—	168	4700	B 34x5	D B 34x5
Service 40 Z	2	3240	Bud D S 6	6	3 3/8x5	31.2	Pw	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	—	168	4900	B 36x6	D B 36x6
Service 50 Z	2½	4415	Bud B U S	6	4 x5 1/8	38.4	Pw	Zen	Vac	Aut	Br-L	U	5	Tim	Wo	63.0	4	—	175	7000	S 36x5	S 36x10
Service 60 Z	3	4480	Bud B U S	6	4 x5 1/8	38.4	Pw	Zen	Vac	Aut	Br-L	U	5	Tim	Wo	63.0	4	—	175	7100	S 36x5	S 36x12
Service 70 Z	3½	5250	Bud B A 6	6	4 1/8x5 1/8	40.8	Pw	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	R	—	175	8200	S 36x6	S 36x12
Service 80 Z	4	5330	Bud B A 6	6	4 1/8x5 1/8	40.8	Pw	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	R	—	175	8400	S 36x6	S 36x14
Standard 2½ K	2½-3½	3200	Con K-4	4	4 1/8x5 1/4	27.2	Pb	Str	Vac	Aut	Br-L 35	C	4	Tim 65600	Sp Wo	34.8	R	D	147	5400	36x5 S	36x8 S
Standard 3½ K	3½-5	4350	Con L-4	4	4½x5½	32.4	Pb	Str	Vac	Aut	Br-L 55	C	7	Tim 66700	Sp Wo	83.0	R	D	160	7485	36x5 S	36x12 S
Standard 5 K	5-7	5250	Con B-5	4	4¾x6	36.1	Pb	Str	Vac	Aut	Br-L 60	C	7	Tim 68700	Sp Wo	83.6	R	D	164	8700	36x6 S	40x14 S
Stewart Buddy 21	¾	895	Lyc W S G	6	2⅞x4¾	19.8	Pb	Str	Gra	Rem	W-G	U	3	Sal	Sp	30.0	R	D	118	2694	30x5.50	30x5.50
Stewart Buddy 21 X	1	995	Lyc W S G	6	2⅞x4¾	19.8	Pb	Str	Vac	Rem	W-G	U	3	Sal	Sp	30.0	4	D	128	2806	30x5	30x5
*Stewart 16	1¼	1295	Lyc C T	4	3¾x5	22.5	Pb	Str	Vac	Rem	Ful	U	3	Cla	Sp	24.0	4	D	130	3326	32x6	32x6
*Stewart 16 X	1¼	1295	Lyc 4 S L	6	3¼x4½	25.3	Pw	Str	Vac	Rem	Ful	U	3	Cla	Sp	24.0	4	D	130	3326	32x6	32x6
*Stewart 24	1½	1645	Lyc C 4 W	4	4 x5	25.6	Pb	Str	Vac	Rem	Ful	U	4	Cla	Sp	27.3	4	D	145	3917	30x5	30x5 D
*Stewart 24 X	1½	1645	Lyc 4 S L	6	3¼x4½	25.3	Pw	Str	Vac	Rem	Ful	U	4	Cla	Sp	27.3	4	D	145	3917	30x5	30x5 D
*Stewart 25	2	1975	Lyc C 4 W	4	4 x5	25.6	Pb	Str	Vac	Rem	Ful	U	4	Tim	Sp	27.3	4	D	145	4088	32x6	35x7
*Stewart 25 X	2	1975	Lyc 4 S L	6	3¼x4½	25.3	Pw	Str	Vac	Rem	Ful	U	4	Tim	Sp	27.3	4	D	145	4088	32x6	32x7
*Stewart 25 W	2	2095	Lyc C 4 W	4	4 x5	25.6	Pb	Str	Vac	Rem	Ful	U	4	Tim	Sp	29.0	4	D	146	4160	32x6	34x7
*Stewart 25 X W	2	2095	Lyc 4 S L	6	3¼x4½	25.3	Pw	Str	Vac	Rem	Ful	U	4	Tim	Wo	29.0	4	D	145	4160	32x6	32x7
Stewart 26 X	2	2190	Lyc T	6	3⅝x5	31.5	Pw	Str	Vac	Rem	Ful	U	4	Tim	Sp	29.0	4	D	145	5020	32x6	32x6 D
Stewart 26 X W	2	2290	Lyc T	6	3⅝x5	31.5	Pw	Str	Vac	Rem	Ful	U	4	Tim	Wo	29.0	4	D	165	5095	32x6	32x6 D
*Stewart 18 X	2½	2690	Lyc T	6	3⅝x5	31.5	Pw	Str	Vac	Rem	Ful	U	4	Tim	Wo	29.0	4	D	165	5788	32x6	32x6 D
*Stewart 19 X	3	3490	Lyc F	6	3⅞x5	36.2	Pw	Str	Vac	Rem	Ful	U	4	Tim	Wo	34.8	4	D	165	6540	36x5	36x10
*Stewart 22 X	4	4200	Lyc F	6	3⅞x5	36.2	Pw	Str	Vac	Rem	Ful	U	12	Tim	Wo	34.8	4	D	165	7990	36x5	36x12
Studebaker G K-N	1	1075	Own	6	3 3/8x4 5/8	27.3	P C	Str	P	Rem	Own	U	3	Own	Sp	13.7	4	Js	146	2830	30x5	30x5
Studebaker "77" Jr.	*3½	2585	Own	8	3½x4⅝	39.2	P C	Str	P	Rem	Ful	U	3	Eat	Sp	19.8	4	Js	158	4745	20x6.75 B	20x6.75 B
Studebaker "88" Spec.	*3½	2935	Own	8	3½x4⅝	39.2	P C	Str	P	Rem	Ful	U	3	Eat	Sp	19.8	4	Js	184	4745	20x7.50 B	20x7.50
Studebaker "99" H. D.	*4	3435	Own	8	3½x4⅝	39.2	P C	Str	P	Rem	Ful	U	4	Eat	Sp	24.6	4	Js	184	5210	20x7.50 B	20x7.50
Stud. Ersk. Mod. 52-B	½	675	Con 9 F	6	2¾x4½	18.0	P C	Sch	Vac	Rem	W-G	U	3	Tim	Sp	15.6	4	4	109	....	30x5.00	30x5.00
Victor 30	1¼	1595	Con	6	3⅜x4	27.3	Pb	Zen	Vac	Rem	Cov	U	3	Tim	Sp	—	4	D	131	3000	30x5	30x5
Victor 35	1½	1895	Con	6	3⅜x4	27.3	Pb	Zen	Vac	Rem	Cov	U	3	Tim	Sp	—	4	D	144	3200	30x5	30x5 D
Victor 40	2	2195	Her	6	3¾x4½	33.7	Pb	Zen	Vac	Rem	Ful	U	4	Wis	D R	—	4	D	148	4300	32x6	34x7
Victor 45	2½	2495	Her	6	3¾x4½	33.7	Pb	Zen	Vac	Rem	Ful	U	4	Wis	D R	—	4	D	148	4500	32x6	32x6 D
Victor 70	3	3495	Her	6	4 x4½	38.4	Pb	Zen	Vac	Rem	Ful	U	4	Wis	D R	—	4	D	162	5800	34x7	40x8
Victor 75	3½	3895	Her	6	4 x4½	38.4	Pb	Zen	Vac	Rem	Ful	U	4	Wis	D R	—	4	D	162	6000	34x7	34x7 D
Whippet 96	½	365	Own 96	4	3 1/8x4 3/8	15.6	Pb	Til	Vac	Aut	Own	U	3	Own	Sp	15.84	4	R	100¼	1469	28x4.75	28x4.75
Whippet 96 A	½	365	Own 96 A	4	3¼x4¾	15.6	Pb	Til	Vac	Aut	Own	U	3	Own	Sp	14.75	4	R	103¼	1526	28x4.75	28x4.75
†White 15 B	1	1545	Own G K A	4	3¾x5 1/8	22.5	C S	Zen	Vac	L-N	Own	C	4	Own	Sp	18.6	R	R	133½	3242	30x5	30x5
†White 57	1¼	2725	Own G R C	4	4 x5¾	25.6	Pw	Zen	Vac	L-N	Own	U	4	Own	Sp	19.3	R	R	146	3774	32x6	32x6
†White 20-A	1½	2125	Own G K A	4	3¾x5 1/8	22.5	C S	Zen	Vac	L-N	Own	C	4	Own	D R	32.1	R	R	145½	4412	34x5	34x5 D P
†White 56	2	3125	Own G R C	4	4 x5¾	25.6	Pw	Zen	Vac	Mag	Own	U	4	Own	Sp	26.1	R	D	165	5157	36x4 S	36x7 S
†White 51-A	2½	3750	Own G R B	4	4¼x5¾	28.9	Pb	Zen	Vac	Mag	Own	U	4	Own	Sp	35.5	R	D	170	6256	36x5 S	36x8 S
†White 55	3½	4650	Own G R B	4	4¼x5¾	28.9	Pb	Zen	Vac	Mag	Own	U	4	Own	I G	50.4	D	R	174	8402	36x5 S	40x5 S D
†White 52-T	3½	4700	Own G R B	4	4¼x5¾	28.9	Pb	Zen	Vac	Mag	Own	U	4	Own	I G	58.4	D	R	129½	8126	36x5 S	40x5 S D
†White 52	5	5100	Own G R B	4	4¼x5¾	28.9	Pb	Zen	Vac	Mag	Own	U	5	Own	I G	91.9	D	R	174	9184	36x6 S	40x12 S
†*White 58	3	4400	Own G R B	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	4	Own	I G	49.5	D	A	180	7400	36x5 S	36x5 S D
*†White 50B 25-29 Pas.	—	5350	Own G R B	4	4¼x5¾	28.9	Pb	Zen	Vac	Mag	Own	U	4	Own	Sp	19.3	R	D	198	6494	34x7	34x7 D
*†White 53 18-21 Pass.	—	4250	Own G R B	4	4¼x5¾	28.9	Pb	Zen	Vac	Mag	Own	U	4	Own	Sp	18.1	R	D	180	6000	34x7.50B	34x7.50DB
*†White 54 25-29 Pass.	—	7500	Own 1 A 1	6	4⅜x5¾	45.9	Pw	Zen	Aut-P	L-N	Own	U	4	Own	Sp	23.0	4	D	227	7915	38x9.00B	38x9.00DB
White 60	1	1850	Own 2 A	6	3½x4½	29.4	Pw	Zen	Vac	Rem	Own	U	3	Own	Sp	17.5	4	D	138	3738	30x5	32x6
Willys-Knight 15	1½	1545	Own K G T	6	2 1/8x3 7/8	20.7	Pb	Til	Vac	Aut	Ful D U	U	3	Eat 1002	Sp	24.3	4	R	134	3300	30x5	32x6
Willys-Knight 16	1½	1595	Own K G T	6	2 1/8x3 7/8	20.7	Pb	Til	Vac	Aut	Ful D U	U	3	Eat 1002	Sp	24.3	4	R	151	3400	30x5	32x6
Willys-Knight 20	2	1945	Own K G T	6	3⅜x4¾	27.3	Pw	Til	Vac	Aut	Ful D U	U	3	Eat 1504	Sp	28.4	4	R	150	3800	32x6	34x7
Willys-Knight 21	2	1995	Own K G T	6	3⅜x4¾	27.3	Pw	Til	Vac	Aut	Ful D U	U	3	Eat 1504	Sp	28.4	4	R	164	3900	32x6	34x7
Willys-Knight 25	2½	2545	Own K G T	6	3⅜x4¾	27.3	Pw	Til	Vac	Aut	Ful G U	U	4	Wis 6617 B	D R	30.4	4	R	150	4920	32x6	32x6 D
Willys-Knight 26	2½	2595	Own K G T	6	3⅜x4¾	27.3	Pw	Til	Vac	Aut	Ful G U	U	4	Wis 6617 B	D R	30.4	4	R	164	5020	32x6	32x6 D

GENERAL NOTATIONS

*†REFERENCE MARKS apply to individual lines only and explanations are given under the subdivision for each company in the "SPECIAL NOTATIONS."

CAPACITIES given in this table are in tons or fractions of tons. Bus capacities are given in number of passengers. *On GMC Line shows maximum allowable gross weight.

TIRE EQUIPMENT where not otherwise indicated is solid.

WHEEL BASES given are standard, but optional wheel bases are available in many cases.

ENGINE—Bud, Buda; Con, Continental; Her, Hercules; Kgt, Knight; Lyc, Lycoming; Wak, Waukesha; Wis, Wisconsin.

LUBRICATION—Pb, pressure lubrication to main and connecting rod bearings; Pw, full pressure lubrication to all bearings, including wrist-pins; P&S, pressure with splash; CS, circulating splash. Sp, Splash.

CARBURETOR—Car, Carter; Hol, Holley; Joh, Johnson; Mar, Marvel; Sch, Wheeler-Schebler; Str, Stromberg; Stw, Detroit lubricator; Til, Tillotson; Zen, Zenith-Detroit.

FUEL FEED—Gra, Gravity; Pre, Pressure; Vac, Vacuum tank; P, Fuel pump Auto-P, Auto pulse; E, Electric pump.

IGNITION—AB, American-Bosch; Aut, Electric Auto-Lite; Apo, Apollo; Del, Dayton Engine Laboratory; Ess, Eisemann; L-N, Leece-Neville; N-E, North East; RB, Robert Bosch; Rem, Delco-Remy; Spf, Splitdorf.

TRANSMISSION—Br L, Brown-Lipe; Cov, Covert; Ful, Fuller; Mec, Mechanics Machine; Mun, Muncie; W-G Warner Gear.

LOCATION—C, Center, Amid; U, In unit with engine. J, Jackshaft.

REAR AXLE—Cla, Clark Equipment; Col, Columbia; Eat, Eaton; Sal, Salisbury; Tim, Timken; Wis, Wisconsin.

FINAL DRIVE—St, Straight bevel; Sp, Spiral Bevel; Wo, Worm; DR, Double Reduction; Ch, Chain; IG, Internal Gear.

BRAKES—Js, Jackshaft; R, Rear wheels; D, Drive Shaft; 4, Four-wheel; Tr, Transmission; W, Westinghouse air brake.

TIRES—B, Balloon; D, Dual; S, Solid.

SPECIAL NOTES

AMERICAN-LA FRANCE

**On Model W—This model is also available with worm drive axle.

AUTOCAR

†Engines in these models are located under the driver's seat.

DURANT LINE

*Price includes panel body.

G. M. C. LINE

*Capacity given in all cases is maximum allowable total gross weight, including chassis, cab, body and load.

Model T-19 is available in six standard types with different tire and wheel equipment. Each has a specified straight rating capacity. Three types have 127¾-inch wheel base and three have 145¾-inch wheel base.

Model T-30 is built in nine types, varying in capacity, tire and wheel equipment on three wheel bases—136, 152, 164 inches.

Model T-42 is built in twelve types, varying in capacity, tire and wheel equipment on four wheel bases—136, 152, 164, 175 inches.

Model T-60 is built in twelve types, varying in capacity, tire and wheel equipment on four wheel bases—140, 160, 180, 200 inches.

Model K-102 is also built as type 6002 with the same specifications except on 184-inch wheel bases. Price $4,350.

FLEET-ARROW LINE

*Model F. A. 1 is also available as Model F. A. 2, at $2,500 on wheel base of 160 inches, weight 3,975 lbs., and as Model F. A. 3, at $2,550, with seven speed transmission, on 180-inch wheel base, weight 3,985 lbs.

HAHN LINE

*Model 24 also available as Model 26, priced $1,495, on 144-inch wheel base, with Buda H S engine, 6-cyl. 3⅜x4½ inches rated 27.3 h. p., weight 3,200 lbs.

*Model 34 also available as Model 36, with Buda H. S. 6 engine (described above), weight 3,850 lbs.

*Model 44 also available as Model 46, priced $2,410, on 156-inch wheel base, with Buda H. S. 6 engine, as in Model 26, weight 4,200 lbs.

†Model 56 also available on 171-inch wheel base.

INTERNATIONAL HARVESTER LINE

*Model HS-54 also available in the following wheel bases, 130-inch tractor, 170, 185 and 200-inch.

*Model HS-54-C also available in the following wheel bases, 130-inch tractor, 170, 185 and 200-inch.

†Frame is reinforced with inserted channels in each side rail, extending from dash to rear end.

*Model HS-74 also available in the following wheel bases, 144-inch tractor, 185, 210 and 235-inch.

*Models HS-74-C and HS-104-C also available in the following wheel bases, 146-inch tractor, 185, 210 and 235-inch.

All Model HS heavy-duty International truck models are equipped with built-in vibration dampered clutches.

LARRABEE

*Note—Bevel gear, worm or double reduction drive rear axle available in models 40 and 50. Bevel or double reduction axles available in 30. Worm or double reduction axles in 60 and 70. Three or more wheel bases in each model. All Larrabee models have hydraulic brakes; 40 up have vacuum booster.

MACK LINE

*Model AB, 1½ to 2 ton model, also available with double reduction rear axle; priced $3,450.

*Model AB, 2½ to 3 ton model, also available with double reduction rear axle; priced $3,850.

CT—City type bus.

P—Parlor type bus.

†Gas electric drive.

**Equipped with electric brakes on rear wheels and hand brake on drive shaft.

PIERCE-ARROW LINE

*Model FA1 also available as Model FA2, at $2,500 on 160-inch wheel base, weight 4,150 lbs., and also as Model FA3, at $2,550 on 180-inch wheel base, weight 4,200 lbs.

*Model XA1 also available as Model XA2, at $3,550 on 162-inch wheel base, weight 6,800 lbs.

*Model XB1 is also available as Model XB2, at $3,800 on 180-inch wheel base, weight 6,900 lbs.

*Model HB1 is also available as Model HB2, at $4,550 on 180-inch wheel base, weight 8,500 lbs., and also as Model HB3, at $4,600 on 198-inch wheel base, weight 8,700 lbs.

*Model WC1 is also available as Model WC2, at $5,150 on 180-inch wheel base, weight 8,950 lbs., and also as Model WC3, at $5,250 on 198-inch wheel base, weight 9,050 lbs.

*Model RD1 is also available as Model RD2, at $5,450 on 180-inch wheel base, weight 9,650 lbs., and also as Model RD3, at $5,500 on 198-inch wheel base, weight 9,750 lbs.

*Model RF1 is also available as Model RF2, at $5,650 on 204-inch wheel base, weight 10,500 lbs.

†Seven-speed transmission also available.

REPUBLIC LINE

*Model 75-4, also available as Model 75-6, priced $1,495, on 128-inch wheel base, with Lycoming 4SL engine, 6-cyl. 3¼ by 4½ inches, rated 25.3 h. p., weight 3,150 lbs.

*Model 76-4, also available as Model 76-6, priced $1,675, on 150-inch wheel base, with Lycoming 4SL engine, as in Model 75-6, weight 3,500 lbs.

†Model 60-61, also available with four-wheel brakes, $3,165.

**Model 62, same as 60-61, on 171-inch wheel base, $3,040.

†Model 25W—25WRB available with four wheel brakes.

**Model 66, same as 65, on 200-inch wheel base, $3,750.

**Model 25W, 25WB and 25WRB also available in 3½-ton capacities as Models S25W, S25WB and S25WRB on wheel bases of 165, 156 and 124 inches, priced $3,695.

**Models 35 and 35B also available in 5-ton capacities on wheel bases of 170 and 167 inches, priced $5,145.

**Model 85 also available on Model 86 on 170-inch wheel base, price $2,150.

**Model 50-51 also available as Model 52 on 170-inch wheel base.

REO LINE

*Tonner in wheel base, 123, 138; 1¼ in wheel base, 137, 156, 152; 2 in. wheel base, 152, 168, 3 in. wheel base, 163, 179, 184.

STEWART LINE

*Buddy ¾-ton can be equipped with 4 wheel brakes.

*Buddy 1-ton can be supplied in 138-inch wheel base.

*Models 16 and 16X can be supplied in 145-inch and 160-inch wheel base.

*Models 24 and 24X can be supplied in 132 and 160-inch wheel base.

*Models 25, 25W, 25X and 25XW can be supplied with dual 32x6 tires, also 160-inch wheel base.

*Model 26X and 26XW can be supplied in 148 and 190-inch wheel base.

*Model 18X can be supplied in 148 and 190-inch wheel base.

*Models 19X and 22X can be supplied in 148, 172, 190 and 220-inch wheel base.

WHITE LINE

*Bus Model 53 is equipped with Booster Brakes and 50B and 54 with air brakes. Model 58 with air brakes as optional equipment.

Model 60 gross weight capacity, with 32x6 tires, 8,000 lbs.; 34x7.50 balloon tires optional at extra cost.

†Supplied in optional wheel bases.

FORD LINE

*Rear axle ratios of 5.1 to 1 and 7.25 to 1 are also available.

Financial News of the Automotive Industry

BRIGGS & STRATTON MAKES HUGE GAINS

Milwaukee, March 19.—The split-up of Briggs & Stratton Company at the rate of 30 shares for 1 calls attention to one of the most striking financial comebacks in Wisconsin in recent years. Five years ago when the company was in distress financially, the stock could have been bought for $2 a share. Back in 1922 the stock was quoted as low as $1.44 a share.

Now Eastern financial houses are negotiating for the stock and will purchase 49 per cent. of the total if they can get it for $870 a share.

The company has 10,000 shares out, having retired all of its second and first preferred stock. It will increase its authorized shares to 750,000 and will issue 300,000 of new common for the 10,000 shares of old.

The business was started nineteen years ago and is now one of the largest manufacturers of such automobile accessories as locks, panels and hardware in the country. More than 10,000,000 locks were turned out by the company last year and production is now running 20 per cent. above that of last year. The company also makes small gasoline motors for washing machines and for small tractors.

WYLIE MADE TREASURER OF COMMERCIAL CREDIT

Baltimore, March 19.—At the annual meeting of the Commercial Credit Company W. Bruce Wylie was elected treasurer, succeeding F. M. Nicodemus, who was elected vice-president. All other directors and officers were re-elected.

BENDIX ADDS 2 NEW DIRECTORS; NET UP

Chicago, March 19.—John C. Ferguson and W. L. McGrath, president and vice-president, respectively, of the Eclipse Machine Company, control of which was recently acquired by the Bendix Corporation, were elected additional directors of the Bendix Corporation, as well as E. H. Cassels, an attorney. Other directors were re-elected.

Net income of Bendix Corporation for the year ended December 31, 1928, after all charges, including interest paid on purchase of controlling interest in Eclipse Machine Company, was approximately $2,200,000. Vincent Bendix, president, told stockholders at the annual meeting.

GOSS DE LEEUW CHUCKING DECLARES REGULAR DIV.

Hartford, Conn., March 19.—At the annual meeting of the Goss De Leeuw Chucking Machine Company of Kensington, the following officers were elected: Stanley T. Goss, president and treasurer; A. L. De Leeuw, vice-president; John M. Black, secretary; A. J. Crozier, assistant secretary.

The following directors were named: Howard S. Hart, Charles F. Smith, Norman P. Cooley, Pardon C. Rickey, A. L. De Leeuw, John M. Black, A. J. Crozier, A. E. Hall and Stanley T. Goss.

The company declared the regular dividend of 2 per cent. which will be paid April 1.

GRAHAM-PAIGE DIVIDEND

Detroit, March 19.—The Graham-Paige Motors Company has declared a quarterly dividend of $1.75 on first preferred, payable April 1 to stock of record March 15.

RANGE OF AUTOMOTIVE STOCKS

MONDAY, MARCH 18, 1929

NEW YORK STOCK EXCHANGE

—Previous, 1929— High	Low	Div.		Sales	High	Low	Close	Net Change
78⅝	48	....	Advance Rumely	19,300	81⅝	79⅛	79⅝	+ 1⅝
83	58½	....	do pf	2,700	85	83	83	....
11¼	9	....	Ajax Rubber	2,100	9⅝	9⅛	9⅛	— ⅛
59½	40½	....	Am. Bosch Magneto	24,200	60⅝	57⅝	59½	+ 2⅝
8⅜	6½	....	Am.-La France	100	6⅝	6⅝	6⅝	— ⅛
62⅛	45¼	....	Briggs Mfg. Co.	9,000	49⅞	48	48¼	— ¼
73½	59½	3	Brockway Motor	1,700	65	63½	63⅜	— 1⅛
86¼	51	2.50	Chicago Pneu. Tool pf.	1,000	51	50½	50½	— ½
135	98⅝	3	Chrysler Corp.	104,700	113	109	111⅜	+ ⅝
28⅝	19⅛	.80	Continental Motors	9,400	23⅝	22⅞	22⅝	— ¼
76¾	61	3	Eaton Axle & Spring	3,800	69½	68	68	— ⅝
170	134⅛	4.50	Electric Auto-Lite	1,500	156¼	153⅝	155½	— ⅝
92⅜	82⅞	5	Electric Stor. Battery	1,300	85⅛	84⅞	85	— ⅝
32½	10⅝	....	Emerson-Brant. A	800	17	16	17	+ 2
22⅝	18	.80	Federal Motors	200	18½	18½	18½	....
20⅛	15⅜	....	Fisk Rubber	4,600	16⅞	16½	16½	— ⅛
82½	66½	....	do 1st pf	100	66½	66½	66½	— 1½
33⅜	24	....	Gabriel Snubber	500	27⅛	26½	26½	— ⅝
25	15	....	Gardner Motor	700	16⅛	15⅞	16	....
90¼	78	4	General Motors	180,900	89⅞	88	88½	+ ½
45	36⅛	1.75	Glidden Co.	1,200	43¼	42¾	42¾	+ ⅜
105⅝	87⅛	4	Goodrich Co.	23,900	100	97	97	— 1½
151	112	....	Goodyear T. & R.	72,000	154½	147¼	150⅜	+ 1⅝
104⅜	102	7	do pf	700	104⅝	104	104¼	+ ½
84	44¼	....	Graham-Paige Motor	6,300	50	48⅜	48⅝	— ⅝
93½	83	5	Hudson Motor Car	14,200	92⅝	90¼	90⅝	— 1⅝
82	67⅝	2	Hupp Motor Car	6,400	75	73⅝	74	— ⅛
14¼	10⅜	....	Intercon. Rubber	700	12	12	12	— ⅛
115	92⅜	2.50	International Harvester	12,900	111⅝	109⅜	109⅜	— ⅛
242⅝	180½	3	Johns-Manville	6,300	194	186	187	— 8
16½	11⅝	....	Jordan Motor Car	11,000	13	12	12⅝	....
24	18	....	Kelly-Springfield	2,600	20	19½	19⅝	— ⅛
100	93	....	do 6s pf	100	93	93	93	....
61⅝	47⅝	2	Kelsey-Hayes Wheel	2,200	58¼	56	56⅛	— 1⅝
25	19⅛	....	Lee Rubber & Tire	1,500	22⅝	21½	21⅞	— ⅛
104⅝	102	6	Mack Trucks	4,000	107	105⅝	105⅞	— 1⅛
84	66¾	4	Marmon Motor	4,100	78⅝	77¼	77¼	+ ⅛
78⅛	69½	3.75	Marlin Rockwell	100	76	76	76	— ½
18	14½	....	Martin-Parry	300	15⅛	15	15⅛	+ ⅛
34⅜	25⅛	....	Mengel	1,500	28⅝	27½	27⅝	+ ⅛
28⅝	22½	....	Miller Rubber	2,400	27¼	25⅛	27¼	+ 2⅛
8	5¼	....	Moon Motors	800	7	6½	6⅝	....
25⅝	19	....	Moto Meter A	1,000	23⅜	22⅝	22⅝	— ⅝
206	165	2	Motor Products	700	193	191	191¼	+ ¼
47½	42½	2	Motor Wheel Corp.	1,600	45⅝	44⅝	44⅝	+ ¼
81⅝	60	....	Mullins Mfg. Co.	1,300	64	63	63⅜	— ⅛
78⅝	67	....	Murray Corp.	6,500	77	75	76	— 1⅛
118⅝	102¼	6	Nash Motors	12,200	109⅝	107½	107⅜	— ⅝
6¼	5	....	Norwalk T. & R.	600	5⅜	5⅜	5⅜	+ ⅛
153	125¼	3.50	Packard Motor Car	18,600	142⅞	138⅛	139¼	— ⅝
22½	17⅛	....	Peerless Motor Car	500	18⅝	18¼	18⅜	+ ⅛
37⅞	28⅝	....	Pierce-Arrow	3,100	34	32⅝	33⅝	— ⅝
86½	72½	....	do pf	400	83	82½	83	+ ⅛
31⅞	27⅛	1	Reo Motors	2,800	29½	29⅛	29⅛	— ⅛
12¼	9½	....	Reynolds Spring	1,900	10	9⅝	9⅝	— ⅛
66⅝	45	....	Spicer Mfg. Co.	2,900	64¼	62⅜	63	— ¼
55⅜	50½	3	do pf	500	52½	52	52⅛	+ ⅛
145	121½	6	Stewart-Warner Speed.	1,100	136½	136	136⅝	— ½
68⅜	52⅝	....	Stromberg Carburetor	4,100	70	67	69	+ 3¼
98	77	5	Studebaker Co.	6,000	89	87¼	87⅝	— 1⅜
87	73½	3	Timken Roller Bear.	2,600	83⅞	83⅛	83½	....
48½	38⅝	2.50	Trico	15,600	51	47⅞	48⅝	....
64	42	....	U. S. Rubber	72,200	65	62½	63½	+ ⅛
92½	77	....	do 1st pf	1,600	90½	90	90	— ½
54½	45⅛	2	Westinghouse A. B.	5,400	53	51⅝	51⅝	— ⅜
53½	40⅝	1	White Motors	900	51⅝	50	50	— 1⅝
35	28⅝	1.20	Willys-Overland	2,300	30⅝	30	30	— ¼
68⅝	61⅞	4	Yale & Towne	300	66	66	66	....
46⅜	35⅛	....	Yellow Truck & Coach	25,500	43⅝	42⅛	42⅞	— ⅜
91	80	....	do pf	100	87½	87½	87½	— 5½

NEW YORK CURB MARKET

Sales.		High.	Low.	Close.	Net Ch'ge.
300	Aub Auto	172	171½	171½	
200	Bendix C'rp.	123⅝	123	123	+ 16
1500	Bohn Alum.	115½	114⅝	115	
200	Budd Ed	68	68	68	+ 1
500	Bullard Co.	53¼	52½	52½	— ½
6200	Checker Cab	87⅞	84½	85	— 2¼
12800	Cities Serv.	121½	120⅝	121½	+ ½
300	do pf	120	119⅝	120	
2900	Durant Mot.	15⅞	15	15½	+ ½
200	Fedders	39¾	38¾	39¾	+ 2¼
600	Fiat	12¾	12⅜	12¾	+ ⅛
2450	Firestone	284½	269½	281	+ 22
780	Ford Can	1100	1011	1040	—65
21400	Ford Ltd	19	18⅝	18⅝	+ ⅝
100	Franklin Mf	36⅝	36⅝	36⅝	— ⅛
100	Hall Lamp	23½	23½	23⅝	+ ⅛
2000	Isotta Fras.	13	13	13	— ⅜
1000	Nat R Mach	33⅝	32⅝	33⅛	— ⅝
500	Param Cab.	32½	32	32	
400	Pgh Pl Gl.	70⅛	70⅛	70⅛	— 1½
2500	Raybestos	82⅝	81¼	81¼	— 1¼
100	Rep M T ctf	3¼	3¼	3¼	— ⅛
2900	Safe-T-Stat.	35⅛	34	34	— 1⅛
100	Seiberling	58¾	58¾	58¾	
8300	Serv-el Inc	17	16⅛	16⅝	+ ⅛
100	Stutz Motor	22½	22½	22½	— ⅝
1700	Thermoid Co.	35⅞	30⅛	33⅛	+ 2⅞
2200	Thomp Prod.	66	65	66	+ 1
200	Timk D Axl.	27	26⅜	27	— ⅛
300	Triplex	24⅞	24⅛	24⅛	— 1⅝
500	Wayne P'mp	25	24	25	
100	West Auto	56⅛	56⅛	56⅛	— ⅝
1800	Wire Wheel	33¾	32⅝	32⅝	— ⅞
400	Yel T N Y.	30½	30½	30½	— 1¼

CHICAGO

Sales.		High.	Low.	Last.
550	Ald Motor I.	46¼	45	45⅜
50	do pf	49	49	49
650	Ald Prod	66½	65½	66½
2400	Auburn	173½	170	172½
50	Au Washer	34½	34½	34½
14500	Bendix	124¼	120	120½
6950	Borg Warner	133¼	130	131
100	do 7% pf.	102	102	102
650	Chi Yel Cab	33¼	33	33⅛
435	Dyt Rubber, A	43	40	43
300	Gn S Bp, A	48	46½	48
1200	do B	46	43½	44⅝
450	Hd Hrsh, A	50	48	48
2150	do B	48¼	46½	46½
200	La Sle Ext	4⅛	4⅛	4⅛
100	Mcqu Nrs	59	59	59
800	Mohawk Rubber	60	58½	58½
200	Mncie Gr	21¼	21	21¼
100	Mskg M A	30	29¾	30
200	Pines Winterfr.	198	198	198
150	Ross Gr	55⅛	55½	55½
150	Vn Skln A	31¾	31	31¼
10	Wksh Motor	184	184	184

CLEVELAND

Sales.		High.	Low.	Last.
90	Firestone	284	270	284
45	Gen Tire	300	300	300
10	India Tire	64½	64½	64½
10	Jaeger Ma	35¼	35¼	35¼
50	Miller Rub pf	77	76	77
200	Mohawk Rubber	60	59⅞	60
330	Seiberl Rub	58⅛	57	57
25	do pf	107	107	107
25	Stearns, F B	5	5	5
1445	Thom, P A	67	65	65
12	do pf	108	108	108

DETROIT

Sales.		High.	Low.	Last.
659	Alloy, A	14⅞	14⅞	14⅞
359	do B	29½	29⅛	29⅝
275	Baldwin Rub	21⅛	20½	20½
150	Bohn	115	115	115
150	Det Mich Steel	9⅝	9⅝	9⅝
360	Federal Mogul	28¼	28¼	28¼
1600	Federal Screw	24	23½	23⅝
97	Ford of Can.	1075	1040	1050
10	Frost Gear	26	26	26
600	Foote Gear	52	51	52
100	Fed Motor Tr.	18¼	18¼	18¼
1853	Gen Spring	47½	46¼	47⅛
3657	do B	46	43	46
1850	Gr Rap Met	16	15⅝	16
200	Graham P	49½	49½	49½
385	Hall Lamp	23⅞	23⅜	23⅝
750	Hayes Body	53⅝	53	53
500	Houdaille, A	48⅛	48	48
100	Jack Motor	33⅝	33⅜	33⅜
90	Mich Steel	100	100	100
1475	Timken D A	27½	27	27
175	Univ Prod	44	44	44
725	Wilcox Rc A	46¼	46	46¼
250	do B	45	45	45

Rubber Prices

New York, March 19.—Rubber prices on the local exchange rallied yesterday on buying support supplied by large uptown interests and prices advanced 40 to 50 points in the later trading after having suffered declines of 30 to 40 points in the morning in sympathy with another London slump.

Sales during the day on the exchange totaled 1,291 lots, or 3,227½ tons.

Standard grades were ¼c. easier on the outside market late in the day with March and April ribs offered at 24½c., against bids of 24¼c. The forwards were unchanged as were the ambers. Rolled brown crepe lost ⅝c. to 17⅝c. for March arrival.

RUBBER EXCHANGE OF NEW YORK

	High.	Low.	Closing Mar. 18.	Mar. 16
March	24.30	23.90	24.30a24.40	24.40
April	....	....	†24.60	24.60
May	24.80	24.40	†24.80	24.70
June	....	....	†24.90	24.80
July	25.10	24.60	25.00a25.10	24.90
August	25.10	25.10	†25.10	24.90
September	25.20	24.80	†25.20	25.00
October	25.00	24.90	†25.20	25.10
November	25.40	25.40	†25.40	25.20
December	25.40	25.00	†25.40	25.30
January	....	....	*25.50	25.40
February	25.50	25.50	*25.60	25.50

Spot, *24.10. Sales, 1,291 lots.

*Nominal. †Trading.

OUTSIDE CLOSING PRICES

(Per pound, delivered, New York.)

	Bid.	Asked.
PLANTATION—		
—Ribbed Smoked Sheets—		
Spot	24⅛	24½
March	24⅛	24½
April	24⅛	24½
April-June	24⅝	25
July-September	25	25¼
October-December	25⅛	25⅜
Spot—		
First latex crepe	24⅝	25
Clean thin brown crepe	21½	21⅝
Specky brown crepe	21⅜	21⅝
Rolled brown crepe	17⅛	17⅝
No. 2 amber	22	22¼
No. 3 amber	21⅝	22
No. 4 amber	21⅛	21⅜
PARAS—		
Up-river, fine, spot	24½	24⅝
do, coarse	14⅝	15
Accra, fine, spot	24⅜	25
Caucho, Ball—Upper	14⅜	15
*Brazil, washed, dried, fine	30	30½
CENTRALS—		
*Esmeraldas	14½	14⅝
*Central scrap	14½	14⅝
Guayule, washed, dried	..	20
BALATA—		
*Block Ciudad	50	..
*Surinam sheet	52	..
*Manaos block	50	..
Peruvian block	27	28

SCRAP RUBBER

(Dealers' buying prices, f. o. b., N. Y.)

Boots and shoes, black, ton.	$21.00a21.10
Arctics, cwt	.50a .60
Inner tubes, mixed, cwt	4.50a 4.75
Inner tubes, red, cwt	5.00a 5.25
Tires, standard, mixed, ton	18.00a19.00
Inner tubes, No. 1, cwt.	6.50a 6.75
Inner tubes, No. 2, cwt.	4.25a 4.50
Mixed hose, soft, cwt	.50a .55
Hose, air brake, ton	27.50a30.00

*Nominal.

The A. D. N. Analyst Looks Them Over

IN this department will appear daily an analysis of one or more companies in, or closely allied to, the automotive industry, covering the past history, present condition and future prospects of the companies so analyzed. It will be the purpose of the A. D. N. Analyst to deal with the smaller and less known manufacturing concerns, as well as with those more prominent, thereby giving analyses not to be found elsewhere. Readers who preserve their issues of Automotive Daily News will, through this department, build up a valuable fund of information about the financial standing of companies in the industry.

KROHN DIFFERENTIAL CORPORATION

THE Krohn Differential Corporation was recently organized to acquire from H. McFarlane & Co., an Illinois corporation, a patented device known as the Krohn Kompensator. It is incorporated under the laws of Illinois and will both manufacture and sell this differential.

Manufacture of the Krohn Kompensator was begun by the McFarlane Company in 1924 for the use in trucks, tractors and buses. Ten years has been spent in developing this differential, which is designed for particularly heavy use. The McFarlane Company, a well-known manufacturer of wagons and truck bodies, has been in business since 1854. It did not have the facilities for making the differential in large quantities, but enough have been produced and marketed to show the merits of the product.

Among the customers now using the Krohn Kompensator are Mack International Truck Corporation, F. W. D. Truck Company, United States government, Diamond T Motor Truck Company, Coleman Truck Company, Versare Corporation and the American Railway Express. The officers of the new company have announced that several truck and bus manufacturers have signified their desire to have the Krohn differential as standard equipment on some of their models as quickly as mass production is entered into.

It is claimed for the Krohn Kompensator that it applies power to both wheels at all times, preventing undue acceleration of a wheel that happens to be off the ground, and that it makes for even braking, etc.

The new company is authorized to issue 20,000 shares of Class A and 5,000 shares of Class B stock. Of the Class A 10,250 shares have recently been offered to the public at $20 a share. Of the Class B, 20,000 shares are outstanding and 20,000 are reserved for conversion of Class A. Organizers of the company have an option on the other 5,000 shares of Class B at $10 a share.

The stock is all of no par value. Class A is entiled to cumulative dividends of $1.40 annually, which is equal to 7 per cent. at $20 per share. It is redeemable on thirty days notice at $26 per share, plus any accumulative dividends, in which case it may be converted into Class B share for share. Both classes of stock have equal voting rights.

Assets of the company include $150,000 in cash, machinery and equipment to the value of $36,406, and patents, trade marks and good will valued in the balance sheet at $130,000. Under liabilities are listed purchase contract obligation of $11,406, the Class A outstanding stock at $205,000 and the Class B at $100,000.

Negotiations with several manufacturers, officers state, have resulted in the corporation receiving quotations for the production of Krohn Kompensators on contract at prices which will permit the corporation to meet competitive prices on standard bevel gear differentials. It is expected that there will be a good demand not only from manufacturers but from owners of trucks and buses seeking replacement units.

Hugh F. McFarlane, president of H. McFarlane & Co., is chairman of the board and a director in the new company. William G. Farnsworth of Grand Rapids, Mich., recently vice-president and general manager of the Addac Company, is president and a director; Edward K. Hardy of Chicago, director of the National Air Transport, Inc., and the Aviation Securities Corporation, is vice-president and a director; Charles W. Lobdell, president of the Edwin L. Lobdell Investment Company of Chicago, is secretary and a director, and Charles W. Willard, vice-president of the Lobdell Company, is treasurer and a director.

HOTEL EMPIRE BROADWAY AT SIXTY-THIRD STREET, NEW YORK CITY

M. P. MURTHA, General Manager.

THE NEW fourteen-story fireproof structure containing every modern convenience and "Servidor" service

RATES. { Room, private toilet.....$2.50 / Single Room with bath... 3.50 / Double Room with bath.. 5.00

The location is unique:

SUBWAY, ELEVATED, STREET CARS, BUSES, ALL AT THE DOOR

Finest parking space in the city

Northern N. Y. Metal Plants Report 11% Employment Gain

(Continued from Page 1)

and Asbestos Spinning and Weaving Corporation are plaintiffs in the case, claiming the use of the flashboards near the Federal dam deprived them of water power, besides causing other damages.

Considerable damage was done to the Watervliet plant of the Slade Products Corporation last week by fire breaking out in one of the corrugated iron mill buildings where the brake linings are finished. Most of the damage was done to the building, although machinery suffered from the large quantities of water used in extinguishing the flames. Only a small force of workers is now employed at the plant, as the bulk of the firm's production is now being turned out at the new factory recently completed near the Ford plant in Green Island.

At Watertown a new warehouse factory is to be constructed immediately by Sears, Roebuck & Co. of Chicago, which will serve as a distributing centeer for the entire northern New York district. The new branch will handle tires, tubes, batteries and other automobile accessories.

Affairs of the Dyett Auto Products Corporation, Little Falls, have been wound up and all claims of creditors settled. Most of the equipment has been removed from the plant is reported on the market The defunct corporation operated in old Rockton Knitting Mill and the the factory for about one year turning out luggage carriers and a number of patented accessories.

Officials of the Robert Bosch Magneto Corporation of Long Island were the principal speakers at a get-together banquet given during the past week in the Hendrick Hudson Hotel, Troy, by the Ehrlich Electric Service Company. More than 100 dealers representing some line of automotive electricity were present. Representatives of the Bosch Company discussed in detail the products being turned out including magnetos and the pyro-action spark plugs.

An electric heater for automobile engines so designed as to circulate heated air about the engine has been invented and a patent awarded to George D. Hauser of Utica. He has turned over an interest in the invention to the Utica Products Company which will look after the manufacturing end of the product.

Arthur P. Torbert, for several years service manager of the Utica branch of the Packard Motors Corporation, has been promoted to district superintendent of the L. R. Mack Company at Albany, distributor of Packard cars in northern New York, Vermont and Massachuetts.

ALLIS CHALMERS TO TREBLE TRACTOR OUTPUT

Milwaukee, Wis., March 19.—With the announcement that Allis-Chalmers has become a manufacturing member of the United Tractor and Equipment Company, a combination of independent farm machinery companies, Allis-Chalmers is more than trebbling its tractor output this year and is almost ready to start production in a new plant for making small models that will fill the gap in the tractor line left vacant by Ford's withdrawal from the field.

A. O. SMITH CORP. REPORTS PROFITS FOR LAST HALF 1928

Detroit, March 19.—The A. O. Smith Corporation (manufacturer of frames, axle housings, special pressed steel shapes, etc.), reports for the six months ended January 31, 1929, a net profit of $913,334 after depreciation, interest and Federal taxes, but before provision for the preferred stock, sinking fund, comparing with $1,044,254 in the corresponding period of previous year. Stock outstanding consists of $1,344,000 (par $100) 7 per cent. preferred stock and 500,000 shares of no-par common.

DOEHLER DIE PLANTS WORKING AT CAPACITY

New York, March 19.—All plants of the Doehler Die Casting Company are working at full capacity for the first quarter of 1929, according to a report by H. H. Doehler, president of the company. The net profit in 1928 was $608,380 as against $389,577 in 1927.

KELSEY-HAYES NET CLIMBS TO $1,202,220

Detroit, March 19.—Report of the Kelsey-Hayes Wheel Corporation and subsidiaries for the year ended December 31, 1928, shows net profit of $1,202,220 after depreciation, Federal taxes, etc., and including $255,007 profit on capital assets sold or scrapped. This is equivalent after 7 per cent. preferred dividends paid to $2.67 a share on 398,522 no par shares of common stock and compares with net profit of $631,877, or $1.14 a share, in 1927.

George W. Kennedy, president, says: "During the year 1928 our business increased 40 per cent., necessitating large expenditures for equipment as well as increased inventory, and our costs were considerably higher than normal, as we were obliged to operate, and at the same time install equipment during the entire latter half of the year.

"Our sales for the last half of 1928 were $5,000,000 in excess of our sales of the last half of 1927, all due to the increased business which we undertook the middle of last year."

KEMPER MADE PRESIDENT OF CINCINNATI BALL CRANK

Cincinnati, O., March 19. — L. Kemper has been elected president of the Cincinnati Ball Crank Company, W. G. Langdon, vice-president in charge of sales, and R. H. Wallace vice-president in charge of production. The new officers have been with the company six months.

Obituary Notes

JOHN E. McMICHAEL

East Orange, N, J., March 19.—John E. McMichael, 60, of 48 South Walnut St., East Orange, died at his home after a long illness. Mr. McMichael was an executive member of the Pierce-Arrow Motor Company in Newark for eighteen years.

GEORGE C. SILSBURY

Boston, March 19.—George C. Silsbury, president of the Silsbury-Gamble Motor Company of Salem, is dead at his home in Lynn, aged 54.

JOHN F. BARNES

Omaha, March 19.—Funeral services for John F. Barnes, Omaha manager of the United States Rubber Company, were held last week with members of the Chamber of Commerce market week committee acting as honorary pallbearers. Mr. Barnes was acting chairman of the spring market week this year.

FORD HITS NEW TOP WITH 8,006 PRODUCTION IN DAY

Detroit, March 19.—The Ford Motor Company set a new high daily production record March 14, with output of 8,006 cars and trucks, of which 6,286 were for the domestic market, 1,163 for foreign shipments and 557 were made in Canadian plants. Ford employment now totals 128,142, of which 102,457 are at the Rouge plant, 20,223 at Highland Park and 5,462 at the Lincoln plant.

Automotive Stocks At Favorable Ratios To 1928 Earnings

(Continued from Page 1)

income reports, the stock of only three is selling at more than 15 times earnings and that of half the companies is priced at less than 11 times.

Mullins Manufacturing at 63 is valued at only 9.6 times a net of $6.53 per share, and Spicer Manufacturing at 63 also is priced at 10.1 times earnings of $6.22. And both of these companies have favorable outlooks for 1929.

The following table shows in detail the market ratio of nine passenger car and truck builders, ten accessory and five tire manufacturers.

PASSENGER CARS AND TRUCKS

Company—	1928 Net per Share	Current Market Price	Ratio
Auburn	$8.01	171	21.3
General Motors	6.14	88	14.4
Hudson	8.45	90	10.6
Nash	7.62	107	12.8
Packard	7.28	140	19.2
Studebaker	7.16	87	12.1
Federal Truck	1.12	18	15.9
Mack	7.83	105	13.4
White	2.90	50	17.2

ACCESSORIES, PARTS, EQUIPMENT

American Bosch	$5.02	59	11.7
Briggs Mfg.	2.15	48	22.3
Eaton Axle & Spring	5.28	68	12.8
Gabriel Snubber	1.64	26	15.8
Martin-Parry	1.37	15	10.9
Motor Wheel	4.24	44	10.3
Mullins Mfg.	6.53	63	9.6
Murray Corp.	3.33	76	22.8
Spicer	6.22	63	10.1
Stewart-Warner	12.92	136	10.5

TIRES

Firestone (Curb)	$14.68	239	17.1
Goodrich	1.50	97	64.6
Goodyear	5.04	150	29.7
Lee	.55	21	38.1
Seiberling (Curb)	1.30	58	44.6

GRAHAM-PAIGE FOURTH IN 1928 INDIANAPOLIS SALES

Indianapolis, March 19.—Total registrations for Indianapolis and vicinity for 1928 for the twelve months showed Graham-Paige standing in fourth place, all makes included. By its sales, Graham-Paige obtained 6½ per cent. of all new car business in Marion county, which includes Indianapolis, or 10¼ per cent. of all business other than Ford and Chevrolet.

In registrations for the first month of this year, Graham-Paige held seventh place in Albany, N. Y.; sixth place in Youngstown, O.; fifth place in Little Rock and Wheeling. In the bigger cities, Graham-Paige was eighth in Chicago and ninth in Philadelphia and Detroit.

CLASS'FIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

PILING UP

Proof of the growing acceptance by automotive advertisers of the value of concentrated coverage in the concentrated Cook County automotive market is piling up—witness the figures which follow:

Automobile and Accessory Gains and Losses in Chicago Newspapers—First Two Months, 1929

CHICAGO EVENING AMERICAN (6-day Evening)	14,514	Lines	GAIN
Second Paper (7-day Morning)	534	"	LOSS
Third Paper (6-day Evening)	4,721	"	LOSS
Fourth Paper (6-day Evening)	5,222	"	LOSS
Fifth Paper (7-day Morning)	10,997	"	LOSS
Sixth Paper (6-day Evening)	11,273	"	LOSS

In 1928

16%

more new cars were registered in Cook County than in the 67 other counties of Northern and Central Illinois *Combined!*

CHICAGO AMERICAN EVENING

a *good* newspaper

One of the twenty-eight Hearst Newspapers read by more than twenty million people—Member of International News Service, Universal Service and Audit Bureau of Circulations.